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This circular of information is intended for prospective students, and is designed to give them general information about Cornell University and its various colleges, the requirements for admission, tuition fees and other expenses, etc.

On the last page of the cover of this pamphlet, there is printed a list of the official publications of the University, which includes the special announcements of the various colleges. Every prospective student should consult this list and send at once for the special announcement of the particular college that he intends to enter. This special college announcement and the General Circular of Information together contain all the information needed by the prospective entrant. If he has not definitely decided in which college he will study, he should send for the special announcements of all the colleges among which his choice lies.

Any of these informational publications will be sent gratis and post-free, and all inquiries are welcome and will be answered promptly by the Secretary of Cornell University, Ithaca, New York.

CALENDAR

First Term

	1920-1921	1921-1922
Entrance examinations begin,	Friday, Sept. 17	Friday, Sept. 16
Entrance examinations end,	Wednesday, Sept. 22	Wednesday, Sept. 21
Registration of new students,	Mon., Tues., Sept. 27-28	Mon., Tues., Sept. 26-27
Registration of matriculated students,	Wednesday, Sept. 29	Wednesday, Sept. 28
Instruction begins,	Thursday, Sept. 30	Thursday, Sept. 29
Last day for payment of tuition,	Tuesday, Oct. 19	Tuesday, Oct. 18
Thanksgiving recess of one day,	Thursday, Nov. —	Thursday, Nov. —
Instruction ends at 1 p. m. { Christmas	Wednesday, Dec. 22	Wednesday, Dec. 21
Instruction resumed at 1 p. m. } Recess	Thursday, Jan. 6	Thursday, Jan. 5
Founder's Day,	Tuesday, Jan. 11	Wednesday, Jan. 11
Instruction ends at 6 p. m.,	Saturday, Jan. 29	Saturday, Jan. 28
Final examinations begin,	Monday, Jan. 31	Monday, Jan. 30
Final examinations end,	Wednesday, Feb. 9	Wednesday, Feb. 8

Second Term

Registration of all students,	Saturday, Feb. 12	Saturday, Feb. 11
Instruction resumed at 8 a. m.,	Monday, Feb. 14	Monday, Feb. 13
Last day for payment of tuition,	Friday, Mar. 4	Friday, Mar. 3
Instruction ends at 1 p. m. { Spring	Wednesday, Apr. 6	Wednesday, Apr. 5
Instruction resumed at 1 p. m. } Recess	Thursday, Apr. 14	Thursday, Apr. 13
Navy Day,	Saturday, May 28	Saturday, May 27
Final examinations begin,	Wednesday, June 8	Wednesday, June 7
Final examinations end,	Thursday, June 16	Thursday, June 15
Commencement,	Wednesday, June 22	Wednesday, June 21

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CORNELL UNIVERSITY

Cornell University was incorporated under the laws of the State of New York on April 27, 1865, and was opened on October 7, 1868. The existence of the University is due to the combined wisdom and bounty of the United States government, of the government of the State of New York, and of Ezra Cornell. The University is at Ithaca, New York, a city of sixteen thousand inhabitants, situated in a picturesque and healthful region. The University Campus overlooks a beautiful valley with Cayuga Lake in the distance. Ithaca may be reached by the Delaware, Lackawanna, and Western Railroad, by the Lehigh Valley Railroad, or by the Ithaca-Auburn Short Line.

The total attendance of students by years has been as follows:

1868-69, 412	1879-80, 505	1888-89, 1229	1898-99, 2543	1908-09, 4859
1869-70, 563	1880-81, 463	1889-90, 1329	1899-00, 2756	1909-10, 5194
1870-71, 609	1881-82, 399	1890-91, 1390	1900-01, 2986	1910-11, 5624
1871-72, 597	1882-83, 384	1891-92, 1670	1901-02, 3293	1911-12, 5848
1872-73, 539	1883-84, 405	1892-93, 1883	1902-03, 3457	1912-13, 6315
1873-74, 509	1884-85, 447	1893-94, 2040	1903-04, 3423	1913-14, 6496
1874-75, 532	1885-86, 575	1894-95, 2042	1904-05, 3841	1914-15, 6891
1875-76, 542	1886-87, 649	1895-96, 2057	1905-06, 4122	1915-16, 7143
1876-77, 561	1887-88, 829	1896-97, 2105	1906-07, 4225	1916-17, 6999
1877-78, 529	1888-89, 1022	1897-98, 2120	1907-08, 4465	1917-18, 5297
				1918-19, 5644

The officers of instruction of Cornell University number about 800. The campus and grounds of the University cover 1,402 acres, not including 165.87 acres owned by the state. The main University buildings in Ithaca are grouped around a quadrangle flanked by Goldwin Smith Hall (history, languages, philosophy, political science, etc.), Lincoln Hall (civil engineering), Sibley College (mechanical engineering), White Hall (architecture, mathematics), McGraw Hall (geology, vertebrate zoology), Morrill Hall (administration, psychology), the University Library, Boardman Hall (law), and Stimson Hall (medicine), with Franklin Hall (electrical engineering), Rand Hall (pattern and machine shops), Morse Hall (chemistry), Rockefeller Hall (physics), the buildings of the College of Agriculture, the Veterinary College, the Astronomical Observatory, the Gymnasium, the Armory, the Drill Hall, the Schoellkopf Memorial Building, and the Bacon Practice Hall conveniently near. The Cornell University Medical College in New York City is located on First Avenue between Twenty-seventh and Twenty-eighth Streets.

The University is composed of the Graduate School (degree A.M., M.S., Ph.D., M.C.E., M.M.E., M.Arch., M.S. in Agr., M.L.D., M.F.), and the following colleges:

- The College of Arts and Sciences (degrees A.B., B.Chem.).
- The College of Law (degree LL.B.).
- The Medical College (degree M.D.).
- The New York State Veterinary College (degree D.V.M.).
- The New York State College of Agriculture (degree B.S.).
- The College of Architecture (degrees B.Arch., B.S.Arch.).
- The College of Civil Engineering, including Hydraulic and Sanitary Engineering (degree C. E.).
- The Sibley College of Mechanical Engineering and Mechanic Arts, including Electrical and Industrial Engineering (degree M.E.).

No student who has satisfied the requirements for any baccalaureate degree, will be recommended for any other baccalaureate degree until he shall have completed at least one year of further residence and of work acceptable to the faculty on whose recommendation the second baccalaureate degree is to be conferred.

REQUIREMENTS FOR ADMISSION

The Graduate School

Graduates of the following colleges of Cornell University, namely, the College of Arts and Sciences, the Medical College, the College of Architecture, the College of Civil Engineering, the Sibley College of Mechanical Engineering, the New York State Veterinary College, the New York State College of Agriculture, and graduates of other institutions in which the requirements for the first degree are substantially equivalent, are eligible for admission to the Graduate School. In other cases, studies pursued after graduation, and experience gained by professional work or otherwise, are taken into consideration in deciding whether the candidate's preparation as a whole is such as to justify his admission to the Graduate School. Graduates of colleges other than those of Cornell University may be admitted to the Graduate School, but not to immediate candidacy for an advanced degree in cases where their training is regarded as less than one year short of that required for the first degree at Cornell University.

Seniors in the colleges of Cornell University who have completed the work required for the Bachelor's degree may, under certain conditions to be ascertained from the deans of their respective colleges, be admitted to the Graduate School.

Correspondence should be addressed to the Dean of the Graduate School, Cornell University, Ithaca, New York. For further details regarding admission, applicants should consult the Announcement of the Graduate School, requests for which should be addressed to the Secretary of Cornell University, Ithaca, New York.

The Graduate School has exclusive control of all graduate work in Cornell University.

The Medical College

The following classes of candidates are admitted to the Cornell University Medical College:

- I. Graduates of approved colleges or scientific schools;
- II. Seniors in good standing in approved colleges or scientific schools upon condition that their faculty will permit them to substitute the first year in the Cornell University Medical College for the fourth year of their college course, and will confer upon them the Bachelor's degree upon the satisfactory completion of the year's work;*
- III. Persons who give evidence by examination that they have acquired an education equivalent to that signified by a Bachelor's degree, and training

*No student is permitted under this clause to enter the second year of the medical curriculum without the Bachelor's degree obtained after at least three years of undergraduate college work. This clause is intended to provide for those students who, by specially directed or by especially proficient work, accomplish the essential requirements for a baccalaureate degree during three years of college residence.

sufficient to enable them to profit by the instruction offered in the Cornell University Medical College.

All candidates for admission, whether of Group I, II, or III, shall have completed satisfactorily in an approved college at least a year's work† in each of the five following subjects:

1. *Physics*, including laboratory.

2. *Chemistry*. The course should include at least fifty hours of didactic work, and not less than eighty hours of laboratory work in inorganic chemistry. In addition, the candidate shall have completed satisfactorily a course in either qualitative analysis, quantitative analysis, or organic, physiological, or physical chemistry, each comprising at least twenty hours of class-room work, and ninety actual hours of laboratory work, and totaling at least twelve semester hours of college credit.

3. *Biology* (Zoology), including laboratory work.

4. *English*.

5. *Modern Language*. French, German, Italian, or Spanish.

Of the four years required to obtain the degree of Doctor of Medicine from Cornell University, the first may be taken in Ithaca or in New York City. The last three years must be taken in New York City.

For more detailed information, a candidate should consult the Announcement of the Medical College, which may be obtained upon application either to the Secretary of the Ithaca Division of the Cornell University Medical College, Ithaca, New York, or to the Secretary of the Cornell University Medical College, First Avenue and Twenty-eighth Street, New York City.

The Undergraduate Courses

All the colleges of Cornell University conferring baccalaureate degrees presuppose, on the part of an applicant for admission, an amount of training equivalent to that gained by four years of successful work in a high school of good standing.

The entrance requirements of these colleges are in many respects similar (see page 12), but special modifications exist and the faculties of the respective colleges may make further modifications at any time to take effect after due notice.

Every applicant for admission to any of the regular undergraduate courses of the University, must file at the Registrar's office either a certificate of good moral character, or, in case he has previously attended some other college or university without graduating from it, a certificate of honorable dismissal from that institution.

Applications for admission to any of the colleges of the University, except the Graduate School and the Medical College, are entertained from the following three classes of persons: (a) those who desire to begin as freshmen, in some college of the University, a regular course of study leading to a degree conferred by that college; (b) those who, having already attended some institution of collegiate rank, desire to enter some college of the University; (c) those who desire to register as special students not candidates for a degree. The conditions of

†A year's work, six semester hours, in each of these five subjects should have followed the usual introductory high school or preliminary college courses in these subjects; otherwise additional college credit for two semester hours should be offered.

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admission for these three classes of persons are separately described on pages 10 and 32.

The regular session in all the colleges of the University, except the Medical College, is divided into two terms. Vacations and holidays are as follows: on Thanksgiving Day, at Christmas, on Founder's Day (January 11), in the spring (at or near Easter), and on Navy Day (for 1921 on May 28). Degrees are conferred at the Commencement in June, and without formal exercises in September and February. For the first term 1920-1921, instruction will begin September 30 and will end January 29; the corresponding dates for the second term are February 14 and June 7. The final examinations at the close of the first term take place between January 31 and February 9; at the close of the second term between June 8 and June 16. Commencement Day in 1921 will be June 22; in 1922, June 21. These dates apply also to the Graduate School. For corresponding dates for the Medical College, consult the special announcement of that college.

The University Summer Session

There are no examinations for admission to the University Summer Session which is a regular part of the University year, extending over a period of six weeks. Instruction is provided in certain entrance subjects, thus enabling students preparing to enter the University to make up deficiencies to the extent of one unit in French, German, Spanish, Mathematics, and possibly in a science. About 150 courses of instruction are given, covering a large amount of regular undergraduate work. University students have thus an opportunity to make up back work, to anticipate work of required courses, and to take subjects for which they have no time during the winter. Attendance through a Summer Session is counted as one-half term of residence. One full university year's work may thus be completed by undergraduates in four summers. Graduate students may, to an extent, as indicated in the announcement from year to year, carry on work towards a Master's degree. Attendance during four summer sessions, together with work done at home during the winter, will satisfy the residence requirements for this degree. Much of the instruction is especially adapted to teachers in all grades of schools. A special Announcement of the Summer Session is published each year in March. Copies may be obtained upon application to the Secretary of the University.

The Summer School in Agriculture

The Summer School in Agriculture is held during the same period as the University Summer Session. Its primary object is to further agricultural education by aiding those engaged in it. Admission is restricted to those who are professionally engaged in education and others who have had at least two years of college work. A special announcement may be obtained upon application to the Secretary of the University or to the Secretary of the College of Agriculture.

The Summer Term in Agriculture

The College of Agriculture has established a summer term equivalent to the present fall or spring terms. It does not replace the six-weeks Summer School in Agriculture for teachers and others engaged in educational work, but is in addition to the Summer School. In order to be eligible for admission to the summer term an applicant must have completed the equivalent of the required courses of the freshman and sophomore years in Agriculture as now prescribed. The regular announcement, giving details of the courses to be offered, may be obtained on application to the Secretary of the University or to the Secretary of the College of Agriculture.

In the Graduate School this summer period constitutes a Third Term which is regarded as equivalent, for purposes of graduate residence, to either of the terms of the academic year.

The Winter Courses in Agriculture

The only requirement for admission to the Winter Courses in Agriculture is that the applicant must be at least eighteen years of age. In order to make the best use of the instruction, a student should have had a good common school education. The Winter Courses extend over a period of twelve weeks, beginning in November and ending about the middle of February. A special announcement, giving details of the work, may be obtained upon application to the Secretary of the University or to the Secretary of the College of Agriculture.

Admission at the Beginning of the Second Term

Applicants who have fully satisfied the entrance requirements of the College of Arts and Sciences may be admitted as freshmen in that college at the beginning of the second term in February, as well as at the beginning of the first term in September. They will be able to make up a satisfactory schedule of work at the beginning of the second term, since freshmen classes in the languages, history, mathematics, physics, chemistry, and zoology are begun at that time.

Applicants who have fully satisfied the entrance requirements of the College of Agriculture may be admitted as freshmen in that college at the beginning of the second term in February; they will, however, find it difficult to arrange satisfactory schedules and therefore should, if possible, enter in September.

Students who meet in full the requirements for admission as freshmen in either the four-year or five-year course in the Colleges of Mechanical Engineering, of Civil Engineering, and of Architecture may enter said colleges at mid-year to pursue courses which will be specially outlined to suit each individual case and which will lead to the degree of Mechanical Engineer, Civil Engineer, or Bachelor of Architecture at the end of four and a half years. Those who at this time meet the requirements for admission to the five-year course must enter the University classes in such of the mathematical courses required for admission to the four-year courses as have not been credited to them.

In order to secure admission at mid-year with advanced standing in the regular four-year courses in the College of Mechanical Engineering, of Civil Engineering,

and of Architecture, with the view of graduating in less than four years, the applicant must have attended an institution of collegiate rank and must secure credit for such university courses as will enable him, by attending during the remainder of the college year and (possibly) during the succeeding Summer Session, to substantially complete the year's work scheduled for the class he wishes to enter. (See page 12.)

Students may not enter the College of Law at the beginning of the second term.

Students who desire admission at the beginning of the second term must place their certificates and credentials in the hands of the Registrar not later than January 15. For January entrance examinations, see page 13.

ENTRANCE REQUIREMENTS FOR FRESHMEN

Men who desire to begin as freshmen a course leading to a degree in one of the colleges of the University, must be at least sixteen years of age. Women must be at least seventeen years of age. In the College of Law the minimum age for both men and women is eighteen years.

Every applicant for admission must, in one or more of the four following ways, show that he possesses a satisfactory knowledge of the subjects that are required for admission to the particular college in which he plans to pursue his studies:

1. By passing the required Cornell University Entrance Examinations, see page 13.
2. By passing the College Entrance Examination Board Examinations in the required subjects, see page 26.
3. By passing the necessary Regents' Examinations (for students who have prepared in New York State), see page 28.
4. By presenting an acceptable school certificate, see page 30.

UNIVERSITY ENTRANCE SUBJECTS

The subjects and the maximum and minimum amounts of credit in units* that may be offered in each for admission to the University are:

1a. English 1	1½ unit	8d. English History	½ unit or 1 unit
1b. English 2	1½ unit	9a. Elementary Algebra	1 unit
2a. First Year Greek	1 unit	9b. Intermed. Algebra	½ unit
2b. Second Year Greek	1 unit	9c. Advanced Algebra	1 unit
2c. Third Year Greek	1 unit	9d. Plane Geometry	1 unit
3a. First Year Latin	1 unit	9e. Solid Geometry	½ unit
3b. Second Year Latin	1 unit	9f. Plane Trigonometry	½ unit
3c. Third Year Latin	1 unit	9g. Spher. Trigonometry	½ unit
3d. Fourth Year Latin	1 unit	10. Physics	1 unit
4a. First Year German	1 unit	11. Chemistry	1 unit
4b. Second Year German	1 unit	12. Phys. Geog.	½ unit or 1 unit
4c. Third Year German	1 unit	13. Biology**	1 unit
5a. First Year French	1 unit	14. Botany**	½ unit or 1 unit
5b. Second Year French	1 unit	14a. Zoology**	½ unit or 1 unit
5c. Third Year French	1 unit	15. Bookkeeping***	½ unit or 1 unit
6a. First Year Spanish	1 unit	16. Agriculture (including home economics, etc.)†	½ unit to 4 units
6b. Second Year Spanish	1 unit	17. Drawing	½ unit or 1 unit
6c. Third Year Spanish	1 unit	18. Manual Training	1 unit
7a. First Year Italian	1 unit	(Any High School subject	
7b. Second Year Italian	1 unit	19.†† < or subjects not already	
7c. Third Year Italian	1 unit	(used	
8a. Ancient Hist.	½ unit or 1 unit	½ unit or 1 unit	
8b. Modern Hist.	½ unit or 1 unit		
8c. Am His. Civics. . .	½ unit or 1 unit		

SUBJECTS AND UNITS REQUIRED BY THE COLLEGES

For admission to the Graduate School and the Medical College, applicants should consult the special announcements of the Graduate School and the Medical College.

The subjects in the foregoing list required by the several colleges for admission to the freshman class are indicated in the following table on p. 12.

*A unit means five prepared recitations a week for one year of study, or 120 sixty-minute hours. Two hours of laboratory work is considered equivalent to one hour of prepared recitation (but see Drawing on page 26.)

**If Biology (1 unit) is offered, neither Botany (½ unit) nor Zoology (½ unit) may be counted.

***No part of No. 15 may be counted for entrance to Arts and Sciences except under No. 19; a maximum of one unit in Bookkeeping is allowed by all the other colleges with the exception of the College of Agriculture which permits a maximum of one unit to be counted with the restriction that it cannot be offered in conjunction with more than one of the following subjects: Agriculture, Drawing, Manual Training.

†Agriculture may not be counted for entrance to Arts and Sciences. An applicant may offer for admission to Agriculture not to exceed four units in vocational subjects under numbers 16, 18, and 19 combined.

††A student may not count under No. 19 work in subjects Nos. 1-18 until he has offered the maximum (e. g. 4 units of Latin; 3 units of English, Greek, German, French, Italian, or Spanish; 1 unit of Physics, Chemistry, or Manual Training) in Nos. 1-18.

ENTRANCE REQUIREMENTS OF THE UNDERGRADUATE COLLEGES

12

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ARTS AND SCIENCES		LAW 3 years	AGRICULTURE 4 years	VETERINARY 4 years	ARCHITECTURE		CIVIL AND MECH. ENG.	
A.B. 4 years	B.Chem. 4 years				4 years	4½ or 5 yrs.	4 years	4½ or 5 yrs.
English, 3	English, 3	A certificate that the applicant has met the entrance requirements and satisfactorily completed two years of study in a university or college of approved standing.	English, 3	English, 3	English, 3	An applicant for admission to Architecture having at least 15 units of entrance credit but lacking some of the credits in entrance mathematics is advised to enter the 4½-year course at mid-year or the 5-year course in September and to take during his first year in the University along with other studies his entrance deficiencies for the 4-year course.	English, 3	An applicant for admission to Civil or Mechanical Engineering having at least 15 units of entrance credit but lacking some of the credits in entrance mathematics is advised to enter the 4½-year course at mid-year or the 5-year course in September and to take during his first year in the University along with other studies his entrance deficiencies for the 4-year course.
Foreign Languages, 5	French, 3 or German, 3		One Foreign Language, 3	One Foreign Language, 3	One Foreign Language, 3		One Foreign Language, 3	
History, 1	History, 1		History, 1	History, 1	History, 1 Physics, 1		History, 1	
Plane Geometry, 1	Plane Geometry, 1		Plane Geometry, 1	Plane Geometry, 1	Plane Geometry, 1		Plane Geometry, 1	
Elementary Algebra, 1	Elementary Algebra, 1		Elementary Algebra, 1	Elementary Algebra, 1	Elementary Algebra, 1		Elementary Algebra, 1	
	Intermed. Algebra, ½		[Solid Geom. and Pl. Trigonometry are not required but are strongly recommended for students intending to take Forestry or Landsc. Art.]	See Note	Intermed. Algebra, ½		Intermed. Algebra, ½	
	Solid Geometry, ½				Solid Geom., ½		Solid Geom., ½	
	Advanced Algebra, ½				Advanced Algebra, ½		Advanced Algebra, ½	
	Plane Trigonometry, ½				Plane Trigonom., ½		Plane Trigonom., ½	
Elective, 4	Elective, 4		Elective, 6	Elective, 6	Elective, 3		Elective, 4	
TOTAL, 15	TOTAL, 15		TOTAL, 15	TOTAL, 15	TOTAL, 15		TOTAL, 15	

Candidates for the degree of Bachelor of Chemistry are advised to include, among their entrance subjects, in addition to the full four units in mathematics, also three units of German and two units of French. Those who have not presented these subjects at admission will be required to take them in the University, which may result in the extension of their period of residence beyond eight terms. For the present, applicants will be admitted to the College of Arts and Sciences as candidates for the degree of Bachelor of Chemistry, upon satisfaction of the entrance requirements for the curriculum leading to the degree of Bachelor of Arts.

For admission to the New York State Veterinary College an applicant must offer a Veterinary Student Certificate issued by the Education Department of the State of New York, Albany, N. Y. This certificate satisfies the entrance requirement in full.

It is strongly recommended that for entrance to Architecture, Civil Engineering, and Mechanical Engineering, at least three of the four elective units be offered in language and history.

French or German is preferred for the three foreign language units required by the College of Civil Engineering, the College of Mechanical Engineering, the College of Agriculture, and the Veterinary College.

If an applicant so desires he may satisfy the foreign language requirement for entrance to Mechanical Engineering, Civil Engineering, and Architecture by two units in each of two foreign languages instead of three units in one foreign language.

The College of Agriculture admits without foreign language those who hold the New York State Academic Diploma in Agricultural Subjects.

In connection with the foreign language requirements, the following restrictions should be noted:

1. In those colleges where the requirement is 3 units, all of these units must be in a single language, except in the case of Mechanical Engineering, Civil Engineering, and Architecture (see p. 12). Any number of elective units in a second language will be accepted. If the applicant offers at least 2 units in the second language, any number of units in a third language will be accepted.
2. In the College of Arts and Sciences where the requirement is 5 units, at least 3 of these units must be in one language and at least 2 units in a second language. Any number of elective units in a third language will be accepted.

1. CORNELL UNIVERSITY ENTRANCE EXAMINATIONS

Examinations in all subjects required for admission to the University are held in Ithaca and in all subjects except Drawing, Manual Training, and certain subjects in Agriculture and Home Economics, in New York City, First Avenue and 28th Street, in September, at the beginning of the first term (in 1920, September 17-22). A fee of \$1 for each subject, with a maximum charge of \$5 for all subjects, will be charged to all candidates who take these examinations in New York City; the fee must be paid a second time in the case of candidates who repeat the examinations. Every entrance subject shown in each line of the list on page 11, is for the purpose of this fee, a subject. This fee may be paid at the time of the examination in New York City.

Permits to take the examinations must be secured from the Registrar in Ithaca. The permits show the exact dates and hours of the examinations, and should be obtained at least twenty-four hours before the date of the first examination to be taken. The results of the examinations will be reported to applicants who file stamped and addressed envelopes in accordance with the directions printed on the permits.

No examination of candidates for admission will be held by the University at any other times or places, except that, on application made to the Registrar between January 1 and 15 in any year, entrance examinations in any of the University entrance subjects may be arranged to be held in Ithaca on or about January 25 of that year. A fee of \$1 for each subject to be taken with a maximum charge of \$5 for five or more subjects, will be charged all candidates applying prior to and including January 15. In case of applicants later than January 15 the Registrar may issue permits wherever possible, in which case double fees will be charged. The object of these January entrance examinations is to permit candidates who complete their preparation at mid-year to enter the University immediately. They make possible at the beginning of the second term the matriculation of candidates who on account of slight shortages were unable to enter the University in the preceding September.

Specimen copies of the September examination papers may be had on application to the Secretary of the University.

A candidate may take all the entrance examinations in the same year, or he may divide them among two or three successive years.

Marks. The following is the marking system employed in the University: A, B, C, D, P or 100-60, a pass; E or 59-41, a condition; F or 40-0, a failure. Prospective students must not assume that they may enter with marks below a pass.

SUBJECT MATTER OF THE CORNELL ENTRANCE EXAMINATIONS

ENGLISH

The examination is intended to test the candidate's training in written expression and his knowledge of the books required to be read. The examiner will consider particularly the following essentials: spelling, punctuation, and the use of capital letters; grammatical correctness; the idiomatic use of words; and the structure of sentences and paragraphs; good sense and intellectual independence. However accurate in subject matter, no paper will be considered satisfactory if seriously defective in punctuation, spelling, or other essentials of good usage.

Candidates will have the option of taking either of two examinations,—a restricted examination based upon books prescribed by the Conference on Entrance English Requirements, or a comprehensive examination based upon books chosen at the discretion of the schools.

Each examination will be divided into two parts, one of which will be on grammar and composition, and the other on literature.

The Restricted Examination

In grammar and composition, the candidate may be asked specific questions upon the practical essentials of these studies, such as the relation of the various parts of a sentence to one another, and those good usages of modern English which one should know in distinction from current errors. The main test in composition will consist of one or more essays developing a theme through several paragraphs; the subjects will be drawn from the books read, from the candidate's other studies, and from his personal knowledge and experience quite apart from reading. For this purpose the examiner will provide several subjects, perhaps eight or ten, from which the candidate may make his own selections. He will not be expected to write more than four hundred words an hour.

The examination in literature will include: (a) Questions designed to test such knowledge and appreciation of literature as may be gained by an intelligent reading of the books given in list A below. (b) A test on the books in list B below. This will consist of questions upon their content, form, and structure, and upon the meaning of such words, phrases, and allusions as may be necessary to an understanding of the works and an appreciation of their salient qualities of style. General questions may also be asked concerning the lives of the authors, their other works, and the periods of literary history to which they belong.

When parts (a) and (b) are taken at different times, each will include a test in grammar and composition.

A. List of books for general reading, 1920-1922.

Substitutes chosen by the candidate and approved by the Department of English may be offered.

Group I: Classics in Translation (two to be selected by the candidate)

The Old Testament, comprising at least the chief narrative episodes in Genesis, Exodus, Joshua, Judges, Samuel, Kings, and Daniel, together with the books of Ruth and Esther; the Odyssey, with the omission, if desired, of Books I, II,

III, IV, V, XV, XVI; the Aeneid. The Odyssey and the Aeneid should be read in English translations of recognized literary excellence.

For any selection from this group a selection from any other group may be substituted.

Group II: Shakespeare (two to be selected by the candidate)

The Merchant of Venice; As You Like It; Julius Caesar.

Group III: Prose Fiction (two to be selected by the candidate)

Dickens's A Tale of Two Cities; George Eliot's Silas Marner; Scott's Quentin Durward; Hawthorne's The House of the Seven Gables.

Group IV: Essays, Biography, etc. (two to be selected by the candidate)

Addison and Steele's The Sir Roger de Coverley Papers; Irving's The Sketch Book—selections covering about 175 pages; Macaulay's Lord Clive; Parkman's The Oregon Trail.

Group V: Poetry (two to be selected by the candidate)

Tennyson's The Coming of Arthur, Gareth and Lynette, Lancelot and Elaine, The Passing of Arthur; Browning's Cavalier Tunes, The Lost Leader, How They Brought the Good News from Ghent to Aix, Home Thoughts from Abroad, Home Thoughts from the Sea, Incident of the French Camp, Hervé Riel, Pheidippides, My Last Duchess, Up at a Villa—Down in the City, The Italian in England, The Patriot, The Pied Piper of Hamelin, "De Gustibus"—, Instans Tyrannus; Scott's The Lady of the Lake; Coleridge's The Ancient Mariner, and Arnold's Sohrab and Rustum.

B. List of books for study, 1920-1922.

Substitutes chosen by the candidate and approved by the Department of English may be offered.

Group I: Drama (one to be selected by the candidate)

Shakespeare's Macbeth, Hamlet.

Group II: Poetry (one to be selected by the candidate)

Milton's L'Allegro, Il Penseroso, Comus; Book IV of Palgrave's Golden Treasury (First Series) with special attention to Wordsworth, Keats, and Shelley.

Group III: Oratory (one to be selected)

Burke's Speech on Conciliation with America; Washington's Farewell Address, Webster's First Bunker Hill Oration, and Lincoln's Gettysburg Address.

Group IV: Essays (one to be selected)

Carlyle's Essay on Burns, with a brief selection from Burns's Poems; Macaulay's Life of Johnson.

The Comprehensive Examination

In grammar and composition the requirement for this is the same as that for the restricted examination, which is described above.

The purpose of the comprehensive examination in literature will be to enable the candidate to show that he has read, understood, and appreciated a sufficient

amount of English literature. The paper will include some questions that cannot be answered except by candidates who are able to apply what they have learned to passages of literature which they have not read before. Suggestions for books to be read in preparation for this examination will be found in the list of recommended reading which follows.

The following list is not intended to be in any sense prescriptive. Its purpose is rather to indicate, by examples, the kind of literature that secondary pupils should be taught to appreciate. Books of equal merit, covering a similar range of literary types, will be accepted as equivalents. A fairly exhaustive list of books suitable for use in secondary schools is included in the Report of the National Joint Committee on the Reorganization of High School English, published by the United States Commissioner of Education, Washington, D. C. Price, twenty cents.

Group I: Classics in Translation

The Old Testament, comprising at least the chief narrative episodes in Genesis, Exodus, Joshua, Judges, Samuel, Kings, and Daniel, together with the books of Ruth and Esther; the Odyssey, with the omission, if desired, of Books I-V, XV, XVI, XVII; The Iliad, with the omission, if desired, of Books XI, XIII, XIV, XV, XVII, XXI; the Aeneid. The Odyssey, the Iliad, and the Aeneid should be read in English translations of recognized literary excellence.

Group II. Drama

Everyman; Shakespeare's *A Midsummer-Night's Dream*, *The Merchant of Venice*, *As You Like It*, *Twelfth Night*, *The Tempest*, *Romeo and Juliet*, *King John*, *Richard II*, *Richard III*, *Henry V*, *Coriolanus*, *Julius Caesar*, *Macbeth*, *Hamlet*; Goldsmith's *She Stoops to Conquer*; Sheridan's *The Rivals*.

Group III: Prose Fiction

Malory's *Morte d'Arthur*; Bunyan's *Pilgrim's Progress*, Part I; Swift's *Gulliver's Travels* (*Voyages to Lilliput and to Brobdingnag*); Defoe's *Robinson Crusoe*, Part I; Goldsmith's *The Vicar of Wakefield*; Frances Burney's *Evelina*; Scott's *Novels*; Jane Austen's *Novels*; Maria Edgeworth's *Castle Rackrent*, *The Absentee*; Dickens's *Novels*; Thackeray's *Novels*; George Eliot's *Novels*; Mrs. Gaskell's *Cranford*; Kingsley's *Westward Ho!*, *Hereward the Wake*; Reade's *The Cloister and the Hearth*, *Griffith Gaunt*; Lytton's *The Last Days of Pompeii*; Blackmore's *Lorna Doone*; Hughes's *Tom Brown's Schooldays*; Stevenson's *Treasure Island*, *Kidnapped*, *The Master of Ballantrae*, *Dr. Jekyll and Mr. Hyde*; Kipling's *Kim*, *Captains Courageous*, *Jungle Books*; Cooper's *Novels*; Poe's *Selected Tales*; Hawthorne's *The House of the Seven Gables*, *Twice Told Tales*, *Mosses from an Old Manse*; Howell's *The Rise of Silas Lapham*, *A Boy's Town*; Wister's *The Virginian*; Cable's *Old Creole Days*; short stories by various standard writers, as Bret Harte, Aldrich, Page, Hale, and Barrie.

Group IV: Essays, Biography, Oratory, etc.

Addison and Steele's *The Sir Roger de Coverley Papers*, *Selections from the Tatler and Spectator*; Boswell's *Selections from the Life of Johnson*; Franklin's *Autobiography*; Washington's *Farewell Address*; Burke's *Speech on Conciliation*

with America; Irving's Life of Goldsmith; Southey's Life of Nelson; Lamb's Essays of Elia; Lockhart's Life of Scott; Thackeray's Lectures on Swift, Addison, and Steele in the English Humorists; Macaulay's Lord Clive, Warren Hastings, Milton, Addison, Goldsmith, Frederic the Great, Madame d'Arblay, Life of Johnson; Two Speeches on Copyright; History of England, Chapter III; Trevelyan's Selections from the Life of Macaulay; Carlyle's Essay on Burns; Ruskin's Sesame and Lilies, Selections; Dana's Two Years before the Mast; Webster's First Bunker Hill Oration; Lincoln's Selections, including at least the Speech at Cooper Union, the two Inaugurals, the Speeches in Independence Hall and at Gettysburg, the Last Public Address, the Letter to Horace Greeley; together with a brief memoir or estimate of Lincoln; Parkman's The Oregon Trail; Emerson's Manners, Self-Reliance; Thoreau's Walden; Lowell's Selected Essays; Holmes's The Autocrat of the Breakfast Table; Burroughs' Selected Essays; Warner's In the Wilderness; Curtis' Prue and I, Public Duty of Educated Men; Stevenson's An Inland Voyage and Travels with a Donkey; Huxley's Autobiography and selections from Lay Sermons, including the addresses on Improving Natural Knowledge, A Liberal Education, and A Piece of Chalk; Hudson's Idle Days in Patagonia; Clemens' Life on the Mississippi; Riis's The Making of an American; Bryce's The Hindrances to Good Citizenship; a collection of Essays by Bacon, Lamb, DeQuincey, Hazlitt, Emerson, and later writers; a collection of letters by various standard writers.

Group V: Poetry

Palgrave's Golden Treasury (First Series): Books II and III, with special attention to Dryden, Collins, Gray, Cowper, and Burns; Palgrave's Golden Treasury (First Series), Book IV, with special attention to Wordsworth, Keats, and Shelley; Milton's L'Allegro, Il Penseroso, Comus, Lycidas; Pope's The Rape of the Lock; Goldsmith's The Traveler and The Deserted Village; a collection of English and Scottish Ballads, as, for example, some Robin Hood Ballads, The Battle of Otterburn, King Estmere, Young Beichan, Bewick and Grahame, Sir Patrick Spens, and a selection from later ballads; Coleridge's The Ancient Mariner, Christabel, and Kubla Khan; Byron's Childe Harold, Canto III or IV, and The Prisoner of Chillon; Scott's The Lady of the Lake, Marmion; Macaulay's The Lays of Ancient Rome, The Battle of Naseby, The Armada, Ivory; Tennyson's The Princess, The Coming of Arthur, The Holy Grail, Gareth and Lynette, Lancelot and Elaine, and The Passing of Arthur; Browning's Cavalier Tunes, The Lost Leader, How They Brought the Good News from Ghent to Aix, Home Thoughts from Abroad, Home Thoughts from the Sea, Incident of the French Camp, Hervé Riel, Pheidippides, My Last Duchess, Up at a Villa—Down in the City, The Italian in England, The Patriot, The Pied Piper, "De Gustibus"—Instans Tyrannus; Arnold's Sohrab and Rustum, The Forsaken Merman, Balder Dead; Selections from American Poetry, with special attention to Bryant, Poe, Lowell, Longfellow, Whittier, and Holmes.

REQUIREMENTS AFTER 1922

In 1923-5, candidates will likewise have the option of taking either a restricted or a comprehensive examination. Further details will be given in a forthcoming number of this circular. The full lists for 1923, 1924, and 1925 may be obtained

from Headmaster Wilson Farrand, Newark Academy, Newark, N. J. Enclose four cents in stamps.

GREEK

The examination in Second Year Greek covers the examination in First Year Greek.

2a. First Year Greek (1 Unit)

The examination assumes that the student has studied the subject intelligently for five periods a week during one year.

2b. Second Year Greek (1 Unit)

The examination assumes that the student has studied the subject intelligently for five periods a week during two years and has read the first four books of Xenophon's *Anabasis*.

2c. Third Year Greek (1 Unit)

The examination assumes that the student has studied the subject intelligently for five periods a week during three years, and has read the first three books of Homer's *Iliad* (omitting II, 494-end), devoting necessary attention to Homeric constructions, forms, and prosody. The candidate will be tested also on translation of English into Greek, principally of detached sentences based on the first two books of the *Anabasis*.

LATIN

3a. First Year Latin (1 Unit)

The examination assumes that the student has studied the subject intelligently for five periods a week during one year.

3b. Second Year Latin (1 Unit)

The examination assumes that the student has studied the subject intelligently for five periods a week during two years, and that he has read four books of Caesar's *Gallic War*.

3c. Third Year Latin (1 Unit)

The examination assumes that the student has studied the subject intelligently for five periods a week during three years, and that he has read six orations of Cicero. The candidate will be tested also on translation into Latin of detached sentences and very easy continuous prose based on Caesar and Cicero.

3d. Fourth Year Latin (1 Unit)

The examination assumes that the student has studied the subject intelligently for five periods a week during four years, and that he has read the first six books of Vergil's *Aeneid*, devoting necessary attention to prosody, versification in general, and the dactylic hexameter.

GERMAN

The examination in Second Year German covers the examination in First Year German; the examination in Third Year German covers the examinations in First Year German and Second Year German. The preparation in German

should include pronunciation, composition, and translation. The following methods are suggested in order to meet the requirements for the oral and aural test as recommended by the Association of Modern Language Teachers of the Middle States and Maryland: dictation, simple conversation based upon material set for translation, written and oral reproduction in German of German passages read by the teacher, and memorizing of short anecdotes. The student should be taught German as a living language.

4a. First Year German (1 Unit)

The examination assumes that the student has studied the subject intelligently for five periods a week during one year.

4b. Second Year German (1 Unit)

The examination assumes that the student has studied the subject intelligently for five periods a week during two years.

4c. Third Year German (1 Unit)

The examination assumes that the student has studied the subject intelligently for five periods a week during three years.

For more specific recommendations as to the nature and character of the three years' preparatory work in German, applicants are referred to the Modern Language Syllabus published by the Education Department of the State of New York (Albany), and the Samples of Entrance and Scholarship Examination Papers, published by Cornell University.

FRENCH

The examination in Second Year French covers the examination in First Year French; the examination in Third Year French covers the examinations in First Year French and Second Year French. The preparation in French should include pronunciation, composition, and translation. The following methods are suggested in order to meet the requirements for the oral and aural test as recommended by the Association of Modern Language Teachers of the Middle States and Maryland: dictation, simple conversation based upon material set for translation, written and oral reproduction in French of French passages read by the teacher, and memorizing of short anecdotes. The student should be taught French as a living language.

5a. First Year French (1 Unit)

The examination assumes that the student has studied the subject intelligently for five periods a week during one year.

5b. Second Year French (1 Unit)

The examination assumes that the student has studied the subject intelligently for five periods a week during two years.

5c. Third Year French (1 Unit)

The examination assumes that the student has studied the subject intelligently for five periods a week during three years.

For more specific recommendations as to the nature and character of the three years' preparatory work in French, including texts to be read, applicants are referred to the publications of the College Entrance Examination Board.

SPANISH

The examination in Second Year Spanish covers the examination in First Year Spanish; the examination in Third Year Spanish covers the examinations in First Year Spanish and Second Year Spanish. The preparation in Spanish should include pronunciation, composition, and translation. The following methods are suggested in order to meet the requirements for the oral and aural test as recommended by the Association of Modern Language Teachers of the Middle States and Maryland: dictation, simple conversation based upon material set for translation, written and oral reproduction in Spanish of Spanish passages read by the teacher, and memorizing of Spanish proverbs and verses. The student should be taught Spanish as a living language.

6a. First Year Spanish (1 Unit)

The examination assumes that the student has studied the subject intelligently for five periods a week during one year.

6b. Second Year Spanish (1 Unit)

The examination assumes that the student has studied the subject intelligently for five periods a week during two years.

6c. Third Year Spanish (1 Unit)

The examination assumes that the student has studied the subject intelligently for five periods a week during three years.

For more specific recommendations as to the nature and character of the first two years' preparatory work in Spanish, including texts to be read, applicants are referred to the publications of the College Entrance Examination Board.

ITALIAN

The examination in Second Year Italian covers the examination in First Year Italian; the examination in Third Year Italian covers the examinations in First Year Italian and Second Year Italian. The attention of teachers is called to the report of the Committee of Twelve of the Modern Language Association of America, published by D. C. Heath & Company, Boston.

7a. First Year Italian (1 Unit)

The examination assumes that the student has studied the subject intelligently for five periods a week during one year.

7b. Second Year Italian (1 Unit)

The examination assumes that the student has studied the subject intelligently for five periods a week during two years.

7c. Third Year Italian (1 Unit)

The examination assumes that the student has studied the subject intelligently for five periods a week during three years.

HISTORY

The examinations in history will be so framed as to require comparison and the use of judgment on the pupil's part, rather than the mere use of memory. The examinations will presuppose the use of good textbooks, collateral reading, and practice in written work. Geographical knowledge will be tested by direct questions or by requiring the location of places and movements on an outline map.

8a. Ancient History ($\frac{1}{2}$ Unit or 1 Unit)

For a full unit of credit, the subject of the examination will be ancient history with special attention to Greek and Roman history, but including also the outlines of ancient oriental history and of early medieval history to the death of Charles the Great (814 A. D.). If, however, the student is prepared for examination in Greek and Roman history alone (without the ancient oriental or the early medieval history), the full unit of credit will, for the present, not be refused him; but he will be given a severer examination on this narrower field. Similarly, for a half unit of credit, applicants may be examined on (a) oriental and Greek history to the death of Alexander the Great (or, more severely, on Greek history alone); (b) Roman and early medieval history to the death of Charles the Great (or, more severely, on Roman history to 476).

8b. Medieval and Modern History ($\frac{1}{2}$ Unit or 1 Unit)

For a full unit of credit, the subject of the examination will be medieval and modern European history, from the death of Charles the Great to the present time. For a half unit of credit, applicants may be examined on either of the following: a. medieval and early modern history (814 to 1648—or, for the present, if they prefer, 476 to 1492). b. modern European history since 1648.

8c. American History and Civil Government ($\frac{1}{2}$ Unit or 1 Unit)

American history from the European discovery of the new world, with especial attention in the seventeenth and eighteenth centuries, to the British Empire in America. After the Revolution, the history and civil government of the United States only need be studied.

8d. English History ($\frac{1}{2}$ Unit or 1 Unit)

For a full unit of credit the examination will cover English History from 55 B.C. to our own day. For a half unit of credit applicants may be examined on either: a. English History from 55 B. C. to 1485 A. D.; b. from 1485 to our own day.

MATHEMATICS

The requirements in mathematics are substantially as defined by the College Entrance Examination Board.

For students who expect to continue their mathematical studies, especially in the engineering colleges, it is not sufficient to have once known the preparatory

mathematical subjects. The student must know them at the time he begins his work in the University. It is therefore very important that these subjects be carefully reviewed just prior to entrance.

A knowledge of the metric system of weights and measures is assumed in all the examinations in mathematics.

9a. Elementary Algebra (1 Unit)

The examination will require a thorough knowledge of the four fundamental operations; factoring, including the determination of the highest common factor and the solution of equations by factoring; fractions, including complex fractions, and an elementary treatment of ratio and proportion; the binomial theorem for positive integral exponents (without proof); radicals, including the extraction of the square root of polynomials and of numbers; the solution of equations of the first degree (numerical and literal, integral and fractional) involving one or more unknown numbers; easy quadratic equations, solved both by factoring and by completing the square; and simple cases of simultaneous equations one of which is quadratic.

Emphasis is laid upon translating verbally stated problems into equations, solving these, and interpreting the results.

9b. Intermediate Algebra ($\frac{1}{2}$ Unit)

The highest common factor by division; surds and imaginary numbers, including the square root of binomial surds and the cube root of polynomials and of numbers; the theory of quadratic equations, including maximum and minimum; the solution of equations and of problems (in one or more unknown numbers) which can be made to depend upon quadratics; the theory of exponents; the proof of the binomial theorem for positive integral exponents; graphical representation and solution of equations; and ratio, proportion, variation, and the progressions.

9c. Advanced Algebra ($\frac{1}{2}$ Unit)

The examination will require such knowledge as may be gained from one of the better textbooks on this subject, including, in addition to a thorough review of elementary algebra, permutations and combinations, irrational and complex numbers with graphical representation of sums and differences of the latter, and an elementary treatment of determinants including the use of minors and the solution of linear equations.

The solution of numerical equations of higher degree, and so much of the theory of equations as is necessary for their treatment, including graphical methods, Descartes's rule of signs and Horner's method, but not Sturm's functions or multiple roots.

Special attention should be paid, throughout the course, to applications under each topic, and emphasis should be laid upon accuracy and precision.

9d. Plane Geometry (1 Unit)

The usual theorems and constructions contained in the better textbooks on this subject, including the general properties of plane rectilinear figures, the circle and the measurement of angles, similar polygons, areas, regular polygons, the measurement of the circle, the solution of original exercises including loci problems, and the mensuration of lines and plane surfaces.

9e. Solid Geometry ($\frac{1}{2}$ Unit)

The usual theorems and constructions contained in the better textbooks on this subject, including: the relations of planes and lines in space; the properties and measurement of prisms, pyramids, cylinders, and cones; the sphere and the spherical triangle; the solution of original exercises including loci problems; and the mensuration of surfaces and solids.

9f. Plane Trigonometry ($\frac{1}{2}$ Unit)

The definitions and relations of the six trigonometric functions as ratios; circular measurement of angles; proofs of the principal formulas, especially those for the sine, cosine, and tangent of the sum or difference of any two angles whatever, and of double angles and half angles; also the product expressions for the sum of two sines or of two cosines, etc.; the transformation of trigonometric expressions by means of these formulas; the use of inverse functions; the solution of trigonometric equations of simple character; the theory and use of logarithms (not including logarithmic series); and the solution of right and oblique triangles, together with simple applications.

9g. Spherical Trigonometry ($\frac{1}{2}$ Unit)

The examination assumes that the student has studied the subject intelligently for five periods a week during a half-year.

10. PHYSICS (1 Unit)

The examination in physics assumes that the student has completed a course in school of at least five hours a week for one year, not less than half of which time should have been devoted to individual laboratory practice. He should be able to solve simple numerical problems involving elementary principles. No special outline and no arbitrary list of experiments is prescribed. It is expected that the work will be fairly well distributed among the various topics and that it will not differ to any considerable extent from the requirements of the College Entrance Examination Board.

11. CHEMISTRY (1 Unit)

The examination in chemistry assumes that the student has completed a full year's course in this subject. This course should include lecture table demonstrations, recitations from a suitable textbook, and individual laboratory work comprising at least forty exercises (eighty actual hours).

The instruction should be thorough rather than comprehensive, and to this end, the ground covered should be restricted to:

(a) The study of the preparation and properties of the following elements: hydrogen, oxygen, nitrogen, chlorine, bromine, iodine, carbon, sulphur, silicon, phosphorus, sodium, calcium, copper, aluminum, and iron; the preparation and properties of the more important compounds of these elements; the consideration of certain important topics, such as the atmosphere, combustion, acids, bases, salts, oxidation, reduction, crystallization, nascent state, catalysis, electrolysis, symbols, formulas, equations, valency, solution, and the manufacture of illuminating gas.

Only such commercial processes as illustrate fundamental principles should be considered;

(b) A careful and thorough study of the important laws and principles pertaining to the following subjects: combining proportions by weight and volume; variation of gas volumes with changes in temperature or pressure; conservation of matter and energy; structure of matter (atomic theory). It is unwise to accord the subjects mass action, equilibrium, and ionization more than mere mention in an elementary course. Moreover, the instruction should not be extended to cover the elements of qualitative analysis, for the time at the disposal of the high school teacher is usually no more than sufficient to cover the field of elementary inorganic chemistry.

The student should keep a notebook record of his laboratory experiments and this should be written up in the laboratory at the time the experiments are performed.

12. PHYSICAL GEOGRAPHY ($\frac{1}{2}$ Unit or 1 Unit)

The ground covered in the examination on textbook work is essentially that outlined by the College Entrance Examination Board, the principal topics being the earth as a planet, the ocean, the atmosphere, and the lands, as treated in the more modern standard textbooks on physical geography. The emphasis of the instruction in the preparatory school should be on the relation of human life to physiographic conditions. For $\frac{1}{2}$ unit of credit it is expected that the student will have had at least so much of laboratory and field training as to enable him to interpret topographic maps to the extent of recognizing simple physiographic forms represented.

Some work with books of reference is assumed to have been done in the preparatory school, and the examination may test the student with reference thereto; but a certificate of the amount of such work, signed by the teacher, will be taken as evidence and will be considered as a part of the examination. No definite list of reference books is prescribed. In general it may be said, however, that books or papers relating to the physiography of the region where the study is carried on, or those relating to phenomena illustrated in that region, should certainly be included. The standard textbooks give ample references to suitable books and papers bearing on the various physiographic provinces and phenomena of the country.

Two periods a week for an entire year should be devoted to laboratory and field work. The laboratory work should be divided between the study of the atmosphere and ocean one-half and the study of the land the other half of the time. The student should be familiar with weather maps and topographic maps, and be able to interpret them. He should be able to tell what physiographic forms are represented on typical maps. The student should do enough field work to understand the physiography of the region in which he studies. A notebook record of the laboratory and field work should be kept carefully.

For further suggestions concerning laboratory work, the Syllabus of the College Entrance Examination Board, the Regents' Syllabus for the Schools of New York State, and the Guide for Laboratory Geography Teaching, The Macmillan Company, New York, may be consulted.

13. BIOLOGY (1 Unit)

The examination assumes a knowledge on the part of the student that should be gained by the intelligent study of the subject for five periods a week during a year. A large part of this time should have been devoted to laboratory practice. Laboratory notes and drawings should be made carefully throughout the course.

14. BOTANY ($\frac{1}{2}$ Unit or 1 Unit)

The examination assumes a knowledge of the general laws and fundamental principles of plant nutrition, assimilation, and growth, as exemplified by plants chosen from the different groups, as well as of the general comparative morphology and the broader relationship of plants.

The following synopsis will suggest the topics of preparatory study: the general fundamental principles of plant physiology; general morphology, including form, methods of reproduction, propagation, etc., of selected representatives of the algae, fungi, liverworts, mosses, ferns, and seed plants; special morphology of the higher plants.

For a more detailed description of the requirements in Botany, the New York State Regents' Syllabus or the College Entrance Examination Board's statement may be consulted, as the requirements stated therein are the same as those for the Cornell entrance examination.

14a. ZOOLOGY ($\frac{1}{2}$ Unit or 1 Unit)

The examination assumes a knowledge on the part of the student that should be gained by the intelligent study of the subject for five hours a week during a half year for $\frac{1}{2}$ unit of credit, or one year for 1 unit of credit. A portion of this time should have been devoted to laboratory practice in the observation of living forms, and to dissection. Laboratory notes and drawings should be made carefully throughout the course.

15. BOOKKEEPING ($\frac{1}{2}$ Unit or 1 Unit)

The examination will be based: (a) on the use of the Journal, Cash Book, Purchase Book, Sales Book, and Ledger; (b) on the preparation of financial and profit and loss statements; (c) on the fundamental theory of double entry book-keeping, especially the analysis of rules of debit and credit and the general classification of accounts.

16. AGRICULTURE, (including home economics, etc., $\frac{1}{2}$ Unit to 4 Units)

The examinations will be based, in general, on courses in farm mechanics, poultry husbandry, soils and fertilizers, farm crops, animal husbandry, including dairying, fruit growing, farm management, and home-making subjects, as approved by the University of the State of New York for high schools. Separate examinations, held only in Ithaca, are set on each of the above subjects on request. In addition, a general examination covering all of the above subjects will be given both in Ithaca and in New York City, but credit will not be given for both general and special examinations. A value of $\frac{1}{2}$ or 1 unit, may be offered for the present.

17. DRAWING ($\frac{1}{2}$ Unit or 1 Unit)

The entrance requirement in drawing includes the drawing of simple, plane, and solid geometrical figures and pieces of machinery, the drawing of simple still life or pieces of architectural ornament, decoration, etc. The standard of judgment for grading the examination is based on the assumption that the preparatory training of the candidate shall have been about 300 actual hours of practice (which may be entirely freehand drawing, entirely mechanical drawing, or part freehand and part mechanical) for the credit of one unit, or about 150 hours for the half unit.

It will be to the advantage of a candidate taking the examination if he can present examples of his work and a teacher's statement showing the amount of time he has given to the subject under instruction.

18. MANUAL TRAINING (1 Unit)

Examinations will be offered in woodworking, forging, foundry work, and machine work. To satisfy the entrance requirement the applicant must have performed not less than 300 hours of actual work in the subject in which the examination is taken. Candidates must present a statement of the time actually spent in the work and of the proficiency attained therein.

19. OTHER HIGH SCHOOL SUBJECTS ($\frac{1}{2}$ Unit or 1 Unit)

In addition to the subjects enumerated above, numbers 1-18, a student may offer for entrance credit not less than one-half unit nor more than one unit in any subject or subjects not already used. This may consist of additional work in a subject for which he has already received the maximum credit allowed,—as, for instance, a fourth year of German. It may also be made up of work in subjects not included under numbers 1-18, as, for example, business law. The work offered under this provision must be regular high school work, recognized in the curriculum, and it must have been tested by the regular examinations in the school itself. The University does not set entrance examinations in subjects offered under this heading.

2. COLLEGE ENTRANCE EXAMINATION BOARD EXAMINATIONS

The examinations (not "comprehensive") of the College Entrance Examination Board, held at Ithaca and elsewhere in June of each year, are accepted as the full equivalents of the Cornell University Entrance Examinations in the corresponding subjects if the marks are 60 or over.

The following table shows the Cornell University entrance subjects with the equivalent subjects of the College Entrance Examination Board.

Cornell University Entrance Subjects	Equivalent College Entrance Board Subjects
1a. English 1.	English A.
1b. English 2.	English B.
2a. First Year Greek.	Greek A, 1 and 2.
2b. Second Year Greek.	Greek B.

Cornell University Entrance Subjects

Equivalent College Entrance Board Subjects

2c. Third Year Greek.	Greek C and F.
3a. First Year Latin.	
3b. Second Year Latin.	Latin 3 = 2 units.
3c. Third Year Latin.	Latin, 1, 2, 4 or 124 = 3 units.
3d. Fourth Year Latin.	Latin, 1, 2, 4, 5 = 4 units.
4a. First Year German.	} German A = 2 units.
4b. Second Year German.	
4c. Third Year German.	German B.
5a. First Year French.	} French A = 2 units.
5b. Second Year French.	
5c. Third Year French.	French B.
6a. First Year Spanish.	} Spanish = 2 units.
6b. Second Year Spanish.	
6c. Third Year Spanish.	
7a. First Year Italian.	
7b. Second Year Italian.	
7c. Third Year Italian.	
8a. Ancient History.	History A.
8b. Medieval and Modern History.	History B.
8c. Amer. History, Civics.	History G.
8d. English History.	History D.
9a. Elementary Algebra.	} Mathematics A.
9b. Intermed. Algebra.	
9c. Advanced Algebra.	Mathematics B.
9d. Plane Geometry.	Mathematics C.
9e. Solid Geometry.	Mathematics D.
9f. Plane Trigonometry.	Mathematics F.
9g. Spher. Trigonometry.	
10. Physics.	Physics.
11. Chemistry.	Chemistry.
12. Physical Geography.	Geography.
13. Biology.	Biology.
14. Botany.	Botany.
14a. Zoology.	Zoology.
15. Bookkeeping.	
16. Agriculture (including home economics, etc.)	
17. Drawing.	Drawing, Mechanical and Freehand.
18. Manual Training.	
19. Any High School Subject or Subjects not already used.	

All certificates of the College Entrance Examination Board should be sent by mail to the Registrar of Cornell University, Ithaca, New York, as early as possible in the summer before the applicant intends to enter. To insure consideration they should reach him not later than the first of September.

In connection with the examination in Mechanical Drawing (but not that in Freehand Drawing) the submission of a certified set of plates is required. They should be sent by mail or express to the Secretary of the College Entrance Examination Board as early as possible in advance of the examination. A blank form indicating the character of the certificate required may be obtained from the Secretary upon application.

The College Entrance Examination Board does not require or receive notebooks.

The examinations of the College Entrance Examination Board will be held at Ithaca, and at various other places, June 21-26, 1920; June 20-25, 1921. A list of places at which the examinations will be held will be published annually about March 1 by the Secretary of the Board. Requests that the examinations be held at particular points, to receive proper consideration, should be submitted to him not later than February 1.

The examination fee at points in the United States and Canada is six dollars; at points outside of the United States and Canada, twenty dollars, for each candidate examined. This fee should be remitted by postal order, express order, or draft on New York to the order of the College Entrance Examination Board.

Each candidate who desires to take the examinations of the Board must make application to its Secretary upon a blank to be obtained gratis from him. For June, 1920, there will be separate blank forms for the application for examination and the certificate of recommendation. The former should be addressed to the College Entrance Examination Board and the latter to the Registrar of Cornell University. Applications for examinations at points in the United States on or east of the Mississippi River must reach the Secretary of the Board not later than May 31, 1920; May 30, 1921; at other points in the United States and Canada, not later than May 24, 1920; May 23, 1921; at points outside of the United States and Canada, not later than May 10, 1920; May 9, 1921.

Applications received later than the prescribed dates will be accepted when it is possible to arrange for the examination of the candidates, but only upon payment of six dollars in addition to the usual examination fee. Candidates who file belated applications do so at their own risk.

When the candidate has failed to obtain the required blank form of application for examination, the usual examination fee will be accepted if the fee arrive not later than the specified date accompanied by a memorandum containing the name and address of the candidate, the examination center at which he wishes to present himself, and a list of all the subjects in which he may have occasion to take the Board's examinations.

The constitution of the Board and detailed definitions of the requirements in each subject in which the Board holds examinations, together with lists of experiments in the natural sciences, are given in a circular of information published by the Board each year. A single copy will be sent to any teacher without charge. In general, however, a charge of ten cents, which may be remitted in postage stamps, will be made for a copy of the document.

Teachers, parents, and candidates for examinations who desire more specific information concerning the work of the Board, as well as those who wish to procure blank forms of application for examination and blank forms of the certificate of recommendation are requested to address the Secretary of the College Entrance Examination Board, 431 West 117 Street, New York City.

3. ENTRANCE BY REGENTS' EXAMINATIONS

The Regents' examinations of the Education Department of the State of New York are accepted as the full equivalents of the Cornell University Entrance Examinations in the corresponding subjects.

All Regents' credentials should be sent by mail to the Registrar of Cornell University, Ithaca, New York, as early as possible in the summer before the

applicant intends to enter. To insure consideration, they should reach him not later than the first of September.

The following table shows the Cornell University entrance subjects with the corresponding Regents' equivalents:

Cornell University Entrance Subjects	Regents' Equivalents
1a. English 1.	Second Year English.
1b. English 2.	Third and Fourth Year English.
2a. First Year Greek.	First Year Greek.
2b. Second Year Greek.	Second Year Greek.
2c. Third Year Greek.	Third Year Greek.
3a. First Year Latin.	
3b. Second Year Latin.	Second Year Latin.
3c. Third Year Latin.	Third Year Latin.
3d. Fourth Year Latin.	Fourth Year Latin.
4a. First Year German.	
4b. Second Year German.	Second Year German.
4c. Third Year German.	Third Year German.
5a. First Year French.	
5b. Second Year French.	Second Year French
5c. Third Year French.	Third Year French.
6a. First Year Spanish.	
6b. Second Year Spanish.	Second Year Spanish.
6c. Third Year Spanish.	Third Year Spanish.
7a. First Year Italian.	
7b. Second Year Italian.	Second Year Italian.
7c. Third Year Italian.	
8a. Ancient History.	Ancient History 3-5 counts = $\frac{1}{2}$ -1 unit.
8b. Modern History.	Modern History 3-6 counts = $\frac{1}{2}$ -1 unit.
8c. Am. History, Civics.	American History and Civics 5 counts = 1 unit.
8d. English History.	History of Great Britain and Ireland 3-5 counts = $\frac{1}{2}$ -1 unit.
9a. Elementary Algebra.	Elementary Algebra.
9b. Intermed. Algebra.	Intermediate Algebra.
9c. Advanced Algebra.	Advanced Algebra.
9d. Plane Geometry.	Plane Geometry.
9e. Solid Geometry.	Solid Geometry.
9f. Plane Trigonometry.	Plane Trigonometry.
9g. Spher. Trigonometry.	Spherical Trigonometry.
10. Physics.	Physics 5 counts.
11. Chemistry.	Chemistry 5 counts.
12. Physical Geography.	Physical Geography 5 counts.
13. Biology.	Biology 5 (Physiology $2\frac{1}{2}$, with Bot. $2\frac{1}{2}$ or Zool. $2\frac{1}{2}$).
14. Botany.	Botany $2\frac{1}{2}$ -5 counts = $\frac{1}{2}$ -1 unit.
14a. Zoology.	Zoology, $2\frac{1}{2}$ -5 counts = $\frac{1}{2}$ -1 unit.
15. Bookkeeping.	Bookkeeping 3-5 counts = $\frac{1}{2}$ -1 unit.
16. Agriculture (including home economics, etc.)	Agriculture (including home economics, etc.) $2\frac{1}{2}$ -5 counts = $\frac{1}{2}$ -1 unit.
17. Drawing.	Drawing 3-6 counts = $\frac{1}{2}$ -1 unit.
18. Manual Training.	Manual Training 6 counts.
19. } Any High School subject or { subjects not already used.	Regents' counts = $2\frac{1}{2}$ -5.

The officially signed certificates or pass-cards (even for single subjects) issued by the Department of Education of the State of New York for passing regular Regents' examinations are accepted in place of examinations in all the subjects required for entrance which are covered by such credentials. The examinations set for professional certificates are not accepted.

The Arts College Entrance Diploma, the Science College Entrance Diploma, or the Vocational Diploma in Agriculture or Home Making satisfies in full the entrance requirements for the four-year course in Agriculture. If an applicant holding one of these diplomas does not present three units of foreign language, he must elect an equivalent amount of work in the University in one or more of the following subjects: foreign language, English, mathematics, philosophy, psychology, history, economics, political and social science.

The Arts College Entrance Diploma or the Science College Entrance Diploma satisfies in full the entrance requirements for the four-year course in Arts and for the four and a half- and five-year courses in Architecture, Civil Engineering, and Mechanical Engineering.

The Arts College Entrance Diploma or the Science College Entrance Diploma satisfies in full the entrance requirements for the four-year courses in Mechanical and Civil Engineering provided the four entrance units required in mathematics are covered by the diploma or otherwise satisfied.

The Arts College Entrance Diploma or the Science College Entrance Diploma satisfies in full the entrance requirements for the four-year course in Architecture provided the four entrance units required in Mathematics, one in Physics, and at least two in either French or German are covered by the diploma or otherwise satisfied.

Notebooks and teachers' statements are not in general required and should not be sent unless specifically asked for in an individual case.

Do not infer that credentials will be accepted. Send credentials at once. Do not fail to appear at the examination if credentials have not at the date of the examination been accepted. Special entrance examinations will not be given for any reason.

The Department of Education, Albany, N. Y., will upon request issue to any student a statement showing all subjects passed to date. Apply to the Registrar for a blank for this purpose.

4. ENTRANCE BY SCHOOL CERTIFICATE

Certificates of work done in public or private schools, in or out of the State may be accepted in lieu of passing entrance examinations, if the University authorities are satisfied with the standing of the school and if the applicant has completed a full regular course in the school and has been duly graduated after at least one year in the school.

The University does not engage in advance to accept the certificate of any school and the previous acceptance of certificates does not establish a permanent right to expect further acceptance, but merely raises the presumption that similar certificates will be accepted.

Three separate steps must be taken before a student of any school will, on its certificate, be admitted to a college of Cornell University.

(a) The principal of the school must by formal application secure the certificate privilege for his school. (b) The principal of the school must submit a school certificate duly filled out for the individual candidate for admission. (c) The candidate himself must make a personal application for admission to the particular college of Cornell University in which he intends to study. Official

blanks for each of these purposes may be obtained from the Registrar of Cornell University and when duly filled out should be returned to him.

The school certificate should be forwarded by the principal as soon as possible after the graduation of the candidate. The application for the certificate privilege should, unless previously granted, accompany the school certificate. The candidate's personal application for admission to a particular college should be sent as early as possible after the candidate has decided in which college of Cornell University he desires to study. The application will be considered merely as a declaration of intention, and will impose no obligation upon the prospective student.

The school certificate should include all the subjects that the candidate has satisfactorily completed in the school, whether or not they are required by the particular college in which the candidate proposes to study; neglect to comply with this regulation may entail serious inconvenience and disappointment to the student. The school certificate may include subjects in which an examination has been passed for admission to the school. No additional or supplementary certificate will be considered after the first college term.

A unit means five prepared recitations a week for one year of study, or 120 sixty-minute hours. Two hours of laboratory work is considered equivalent to one hour of prepared recitation (but see Drawing on page 26).

If the candidate has not had five periods a week for one year in any subject but has had not less than 120 actual hours (7,200 minutes) of recitation in the subject and the school desires to recommend him for one unit of credit, the school certificate must show the exact number of actual hours of recitation.

Notebooks in general need not be submitted and should not be sent unless they are in individual cases specifically requested by the Registrar.

Subjects in which work has been done privately outside of the regular school curriculum, even if under the direction of teachers in the school, should not be included in the certificate. Work done at any other time than from September to June should not be included in the certificate.

The candidate must take his entrance examinations at Cornell University (in Ithaca or in New York City) in September if by that time he has not been notified that his school certificate has been accepted. Entrance examinations will be given in September and January only, as stated on p. 13.

If in any entrance subject a student has failed to pass the Cornell or any other University Entrance Examination, or the College Board Entrance Examination, or the Regents' examination, he will not thereafter be allowed to offer a school certificate in that subject unless, subsequently to his failure, he shall have pursued the subject regularly in class for the full time required and shall have done the full amount of work required for entrance in the subject.

Admission on school certificates is in all cases provisional. If, after admission to the University, a student fails in any subject dependent upon an entrance subject for which a school certificate has been accepted, credit for that entrance subject may be cancelled.

All communications and requests in connection with admission by school certificate should be addressed to the Registrar of the University. The University will welcome any special or personal information that school principals may care to furnish in connection with individual applicants for admission.

COLLEGE CREDIT EXAMINATIONS FOR SURPLUS ENTRANCE

Credit towards a degree for work done in a preparatory school, upon subjects (Nos. 1-18, incl.) which may be offered for entrance to the University, will be given only to those students who, in addition to satisfying all entrance requirements, pass separate examinations in the subjects for which they seek college credit. These examinations will cover substantially the same ground as the University courses in the corresponding subjects. An applicant who desires a college credit examination of this kind must apply to the Registrar as early as possible and in no case later than the day preceding the beginning of the entrance examinations, specifying which fifteen units he intends to offer in satisfaction of the entrance requirements, and upon what other entrance subjects he wishes to be examined for college credit.

In case he fails to satisfy the entrance requirements in any one or more of the subjects which he has offered for entrance, but passes the college credit examination in any other subject or subjects, he may use the latter for satisfying the entrance requirements, but in that case he cannot also receive college credit therefor. The college credit examinations will be held in September, on the dates set for the entrance examinations in the same subjects.

A candidate using No. 19 of the list of University entrance subjects (see page 11) to make his fifteen units may not apply for a college credit examination as described above.

ADMISSION FROM OTHER COLLEGES

A student who, having already attended a college or a university, desires to be admitted to a regular course in a college of Cornell University, should file by mail with the Registrar of Cornell University, on an official blank to be obtained from him, a formal application for admission to one of the colleges of the University, along with an official certificate from the college or university which he has already attended, giving evidence of (1) his honorable dismissal, (2) his entrance examinations in detail, (3) his terms of attendance and the amount of work that he has taken, and (4) a detailed statement of the courses pursued. He should also send a catalogue of the institution, writing on it his name and marking the entrance requirements which he has satisfied and each subject which he has taken. All applicants for admission from other colleges should consult the special announcement of the college in which they propose to study.

ADMISSION OF SPECIAL STUDENTS

A person, ordinarily one of considerable maturity, may under certain circumstances, even without satisfying the entrance requirements, be admitted to one of the colleges of Cornell University as a special student not a candidate for a degree. The applicant must give evidence of ability to do creditable work in the college and his application for admission must be recommended by the department in which he proposes to do the main part of his work.

If a person admitted as a special student without satisfying the entrance requirements subsequently satisfies these requirements, he may be graduated

under the ordinary regulations that obtain in the particular college in which he is studying. He will not be permitted, however, to make up deficiencies in entrance subjects by attending University instruction in those subjects.

Candidates for admission as special students must file their applications directly with the Dean of the particular college in which they propose to study.

Special students in the College of Arts and Sciences must be at least twenty-three years of age; in the College of Law, in the College of Architecture, and in Sibley College, twenty-one years of age.

The College of Civil Engineering admits as special students persons at least twenty-one years of age who are college graduates and who intend to pursue advanced work without being candidates for a degree. The Sibley College of Mechanical Engineering requires that its special students shall have had engineering experience and the equivalent of the mathematics specified for the admission of regular students.

Special students in the College of Agriculture must have had two full years of recent farm experience and, unless they can satisfy all the entrance requirements for the regular course, must be at least twenty-one years of age.

THE BEGINNING OF THE UNIVERSITY COURSE

The first formal step at the beginning of the University career is the act of registration in the University. September 27 and 28 are the days for the registration of new students in 1920.

A candidate, to be entitled to register, must present a formal registration permit, which is a card issued by the Registrar and sent to the candidate as soon as the requirements for entrance have been satisfied. This registration permit is ordinarily sent direct to the home address of the prospective student if he is entering by School Certificate, College Entrance Board Examinations, or Regents credentials. If the candidate is entering by the September Cornell Examinations in New York City or in Ithaca, the registration permit is ordinarily sent to his local address as soon as the requisite examinations have been passed.

If the candidate is entitled to this registration permit but has for any reason not received it by registration day he should call in person at the Registrar's office and procure it.

The registration permit bears on its face all the necessary directions for the candidate's registration in the University.

No candidate will be allowed to register after September 28, 1920, unless he has first obtained the special permission of the dean of the college in which he purposes to study.

With a student's first registration in the University there begins for him a period of greater personal responsibility than he has ever before been called upon to face. He should realize that the success of his University career depends in large measure upon his individual ideals, his individual industry, and his individual determination to make the best possible use of his opportunities. Cornell University offers its equipment; its officers of instruction and administration stand ready to help with their personal encouragement and advice; but after all, the ultimate responsibility for success or failure rests upon the individual student himself.

With reference to details of curriculum, subjects to be studied, requirements for the degree, etc., the prospective student should consult the special announcement of the particular college which he intends to enter. Several of the colleges publish hand books of information for their students. These may be obtained from the deans of the several colleges.

In the College of Arts and Sciences, where there is a considerable range of choice in studies to be pursued, an adviser from the teaching staff will be assigned to each freshman and each sophomore to consult with him in regard to his studies. In other colleges, where the curriculum is more or less definitely fixed, this control is exercised directly by the dean of the college or by a special class adviser.

No college in the University undertakes to send to parents or guardians regular reports of the progress and standing of the students under its control. Students in the University are regarded as responsible young men and young women and a constant effort is made to inspire and develop in them the sense of this personal responsibility and the realization that their success or failure is, in the last analysis, a matter of their own making.

Conduct. A student is expected to show both within and without the University such respect for order, morality, personal honor, and the rights of others, as is demanded of good citizens and gentlemen. Any one who fails to do this will be removed from the University.

[PAYMENTS TO THE UNIVERSITY

TUITION

Regular Year.....	\$200
Graduate School.....	75
Third Term in Agriculture.....	100
Summer Session, 1919.....	30
Summer School in Agriculture, 1919.....	30†
Winter Courses in Agriculture.....	25†

Students upon registering become liable for the tuition fee for the term.

The tuition fee is payable in installments of \$110 at the beginning of the first term and \$90 at the beginning of the second term. In the Medical College in New York City the entire fee is payable at the beginning of the year.

The tuition fee for any term may be refunded to any student who, for reasons satisfactory to the Comptroller and the Registrar, withdraws within twenty days after the first registration day.

A student who withdraws from the University, for reasons satisfactory to the Comptroller and the Registrar, on or before November 15 or April 1, may have refunded one-half of the tuition fee for the current term.

Students registering after December 1 pay for the remainder of the first term two-thirds of the tuition fee for the first term. Students registering after April 1 pay for the remainder of the second term two-thirds of the tuition fee for the second term.

Free Tuition. Tuition is free to students who hold New York State Tuition Scholarships.

†Tuition is free to students in the Winter Courses in Agriculture who for one year immediately preceding have been bona fide residents of New York State. For provisions governing free tuition in the Summer School in Agriculture, see the special announcement of the University Summer Session.

Students pursuing full, special, and short courses in the State Agricultural and Veterinary Colleges and students in the Graduate School whose major work is taken in these colleges who at the beginning of the college year are and for at least twelve months prior thereto have been bona fide residents of the State of New York, shall be exempt from payment of tuition fees, provided, however, that no student shall be allowed to transfer from any such course to another course where tuition is charged without first paying the regular tuition fees for the hours for which he may receive credit in the latter course.

No student will receive the Master's degree who has not met the tuition requirements for at least one full year, and no one will receive the doctor's degree who has not met the full tuition requirements for at least three years, unless one or more of these years have been spent in graduate study at another University.

Students in the Graduate School who have completed the full requirements of residence for the respective Master's and Doctor's degrees for which they are candidates, whose studies have been satisfactory to the faculty, and who during that time have satisfied the requirements as to tuition fees, shall on paying the annual administration fee, be exempt from payment of further tuition fees for a period not exceeding one year.

Members of the instructing staff registered in the Graduate School and having their major subject in the college or line of work in which they are instructing, or already having a degree and registered for work leading to the first degree in the college in which they are instructing, shall be exempt from the payment of tuition, and from the payment of laboratory and shop fees in the department in which they are employed to give instruction. Members of the instructing staff taking work for which they are not entitled to free tuition shall be charged tuition in proportion to the amount of work for which they are registered.

All tuition and other fees may be changed by the Trustees to take effect at any time without previous notice.

OTHER FEES

A matriculation fee of \$10 is charged all students on entering the University

A registration fee of \$5 is charged each student registering for the first time in the Summer Session.

An administration fee of \$12.50 a term is charged all students registered in the Graduate School.

Every student (except those registered in the Medical College in New York City) is charged an Infirmary fee of \$5 a term, payable at the beginning of each term. Students in the winter courses in Agriculture, are required to pay an Infirmary fee of \$3. In return for the Infirmary fee, any student who is ill, is on his physician's certificate admitted to the Infirmary, and is given without further charge a bed in a ward, board, and ordinary nursing, for a period not exceeding two weeks in any one academic year.

Extra charges are made for private rooms, special food, and special nurses. If an ill student who has not received two weeks' service in the year is refused admittance to the Infirmary, by reason of lack of accommodation, or if he is not cared for elsewhere by the University, he is entitled to a refund of the fee for both terms.

Students in the University Summer Session and in the Summer School in Agriculture have all the privileges of admission to the infirmary. They pay no fee in advance, but are liable for regular charges for services rendered.

For medical advice, see page 49.

Each male undergraduate student registered in the University shall be charged a locker fee of \$2 a term, which locker fee shall cover the use of a locker in the University gymnasiums, or in the State Drill Hall, or in Schoellkopf Memorial Building with the use of bathing facilities and towels therein and the use of the Cornell University gymnasiums and play grounds.

Students registered in Sibley College or in the College of Civil Engineering are charged \$12.50 a term for material used in College shops and laboratories; students not registered in Sibley College but taking work in the Sibley shops are charged at the rate of \$3.50 a record hour. A student who has taken while in a non-engineering college of this University part of the work required for an engineering degree shall, before receiving the technical degree, be required to pay to the University Treasurer such amount as would have been necessary if all such work had been taken while registered in the engineering college.

A fee of \$5 a term is required of students registered in Architecture for materials used in the draft rooms and laboratories. Students not registered in Architecture but taking work in design or drawing from life, must pay a fee of \$5 a term; for other courses in drawing or modelling \$2.50 a term.

A graduation fee of \$10 is required of each person taking a first or undergraduate degree, and one of \$20 of each person taking an advanced degree. When the degree is to be conferred at Commencement, this fee must be paid at least ten days prior to Commencement Day. When the degree is to be conferred at another time than Commencement (September or February), the graduation fee must be paid at least ten days prior to the date on which it is to be conferred. The amount paid will be refunded should the degree not be conferred.

Every person taking laboratory work or courses where a fee is charged must pay to the Treasurer the required fee or the required deposit for the materials, etc., to be used in the work. Members of the instructing staff who are registered in the graduate school shall be exempt from the payment of the laboratory and shop fees, in courses taken or in research pursued in the department in which they are employed to give instruction.

All students in the University are held responsible for any injury done by them to its property.

A student who fails to pay his indebtedness to the University within twenty days after the last registration day for the term will be dropped from the University.

Any of the following mentioned fees may be waived in any individual case upon recommendation of the Dean of the college concerned, if in his judgment the student's failure to comply with the regulation was due to ill health or to any other reasons beyond his control.

A student desiring to be reinstated after having been dropped from the University for delinquency in scholarship or conduct shall first pay a fee of \$25.

A matriculated student desiring to register after the close of Registration Day shall first pay a fee of \$5.

A student desiring to file his registration of studies after the date set by his college for filing the same shall pay a fee of \$2.

A student desiring to take an examination or other test for the removal of a term condition (including the making up of a mark of "absent" or "incomplete") shall first pay a fee of \$2 for each examination or other test.

A student desiring to continue his University work after having been absent without excuse from his Dean from any class or exercise occurring during the two days immediately preceding or immediately following the Thanksgiving, the Christmas, or the Easter Recess, shall pay a fee of \$5 for each day on which an absence occurred.

Students in the Graduate School are exempt from the fines imposed for late registration and for absence before and after vacation periods.

EXPENSES

A student's expenses at Cornell, beyond the stated University fees and a small outlay for books and instruments, depend in large measure on his personal tastes and habits. His expenses, other than those for board and room, may be estimated at the normal rate prevailing throughout that section of the country in which Ithaca is situated.

Parents and guardians are earnestly cautioned against providing their sons and wards with an excessive amount of pocket money. Many young men have been fatally handicapped in their university careers by overindulgence in this respect.

RESIDENTIAL HALLS

The University has five residential halls for men students situated on the Campus and furnishing accommodations for about 420 men. For particulars address the University Treasurer, Ithaca, N. Y. There are, also, many private boarding and rooming houses near the University Campus. In these the cost of board and furnished room, with heat and light, varies from \$8 to \$12 a week. By the formation of clubs, students are sometimes able to reduce their expenses for room and board. Cafeterias are maintained by the University in Cascadilla Hall, Baker Court, and Sibley, and by the College of Agriculture in the Home Economics Building where meals may be obtained at reasonable prices.

Before engaging rooms, students should carefully examine sanitary conditions and should particularly insist on satisfactory and sufficient fire escapes. The University publishes and distributes a list of approved rooming houses. This list is ready for distribution on August 15. New students are advised to come to Ithaca a few days in advance at the beginning of their University duties in order that they may have ample time to secure room and board before the opening of the academic year. The Freshman Advisory Committee offers its assistance to new students in the selection of rooming and boarding houses.

The residential halls for women students are Sage College and Prudence Risley Hall. In these buildings the total cost of board, laundry, and rent of furnished rooms, with heat and light, is \$400. The halls are heated by steam, and lighted by electricity. The University Adviser of Women has jurisdiction

over all women students in the University, and women students are not permitted to board and lodge outside of the halls for women except in houses approved by the Adviser, and subject to her direction. Prospective women students should write to the Adviser of Woman for information concerning any matters in which they may need assistance. Dormitory facilities for women are inadequate, and prospective students desiring such accommodations are urged to make early application. Inquiries in regard to board and rooms in the women's halls should be addressed to The Manager of Residential Halls, Sage College, Ithaca, N. Y.

SCHOLARSHIPS AND PRIZES

State Tuition Scholarships

(Awarded by New York State)

Under the law of the State of New York, the Commissioner of Education is empowered to award annually a number of free scholarships in Cornell University equal to the number of Assembly districts in the State of New York. Each scholarship entitles the holder to free tuition for four years beginning in the September immediately following the award of the scholarship.

Every scholarship holder must satisfy the regular requirements for admission to one of the colleges of the University.

Holders of State Scholarships are notified that failure to register before the close of the last registration day for each term involves the severance of their connection with the University and consequently the forfeiture of their scholarships. The Commissioner of Education fills all vacancies in scholarships.

A State scholarship holder, after regular registration at the University, may receive a leave of absence for the purpose of earning necessary funds to defray his living expenses at the University. Such leave of absence may be granted at the beginning of the University course, but in that case the scholarship will not be extended for the period covered by the leave of absence; on the contrary it will lapse at the expiration of four years from the date of its original award. If, however, leave of absence for the aforementioned purpose is granted after the holder has made a creditable record in the University for at least one year, his scholarship will be extended for a period not to exceed two years, thus making the scholarship valid for a total period not to exceed six years from the date of the original award. State scholarship holders desiring leave of absence on their scholarships should apply at the Secretary's Office, 31 Morrill Hall, Ithaca, New York. Leave of absence from the University does not carry with it leave of absence on state scholarships.

Every person who shall have entered the military or naval service of the United States since April 6, 1917, or who shall hereafter enter such service during the present war, and who at the time of such entrance held a State scholarship in Cornell University and was exercising the rights and privileges thereunder or held such scholarship under a leave of absence granted pursuant to subdivision 6 of section 1037 of the Education Law, may reassume such scholarship and exercise and enjoy all rights and privileges thereunder, at any time within one year after the termination of such war.

For particulars in regard to the awarding of Cornell University State Scholarships, application should be made to the Commissioner of Education, Albany, New York.

State University Scholarships

Known at Cornell as the "State Cash Scholarships"

(Awarded by New York State)

Under the law of the State of New York (Chapter 292, Laws of 1913), State Scholarships have been established in the several counties of the State, to be maintained by the State as provided by law. Five such scholarships are to be awarded each county annually for each assembly district therein. Each such scholarship will entitle the holder thereof to the sum of one hundred dollars for each year of his attendance upon an approved college in this State during a period of four years. A person who receives such scholarship is not restricted in his choice of the college which he desires to attend, or as to the course of study which he proposes to pursue; provided that no such scholarship shall include professional instruction in law, medicine, dentistry, veterinary medicine, or theology, except so far as such instruction is within a regularly prescribed course of study leading to a degree other than in one of the above named professions; and provided further, that the college selected by the person entitled to such scholarship is situated within the State of New York, and is incorporated as a college and authorized under the laws of this State and the rules of the Regents of the University to confer degrees.

University scholars absent because of the performance of military service or of agricultural or industrial service are entitled to an extension of the period covered by their scholarships upon presentation of evidence satisfactory to the Commissioner of Education that they have been engaged in such service. In no case shall a scholar be entitled to receive more than the sum of one hundred dollars each year for a period of four years to aid him in the completion of a college education.

For particulars in regard to the awarding of State Scholarships, application should be made to the Commissioner of Education, Albany, New York.

University Undergraduate Scholarships

(Awarded by the University)

Nine University Undergraduate Scholarships, each continuing for two years and of an annual value of \$200, are offered each year to members of the incoming freshman class. The award is made on the basis of a special competitive examination held in Ithaca in September between the period of the entrance examinations and the opening of the University.

Every candidate for such a scholarship must have satisfied the full entrance requirements (as stated on page 12) of that college of the University which he proposes to enter.

Holders of New York State Scholarships, either state tuition scholarships or state cash scholarships or both, are eligible for University Undergraduate Scholarships.

The University Undergraduate Scholarships will be awarded on the basis of examinations in three of the eight following subjects:

- (a). English. Entrance requirement. See pages 14-17.
- (b). Greek. Greek grammar and composition; translation at sight of simple prose.
- (c). Latin. Latin Grammar and Caesar; composition and Cicero; Vergil. See page 18.
- (d). French. Third year French. See page 19.
- (e). German. Third year German. See page 19.
- (f). Spanish. Third year Spanish. See page 20.
- (g). Elementary mathematics. Elementary algebra; intermediate algebra; plane geometry. See page 22.
- (h). Advanced mathematics. Solid geometry; advanced algebra; and plane trigonometry. See pages 22 and 23.

In choosing three of these eight subjects, every candidate must take English and at least one of the other five languages; and any candidate who does not select either Latin or Greek must take advanced mathematics.

No scholarship will be awarded to any candidate who is reported markedly deficient in any subject in which he is examined, and the right is reserved to fill fewer than nine scholarships in the absence of a sufficient number of duly qualified candidates.

Before scholarships are awarded, every candidate must indicate the college and, if several courses of study with diverse entrance requirements are given in that college, the course in which he intends to register. In order to hold a scholarship, if it be awarded to him, he must register in that college or course, and he will forfeit his right to the scholarship, if he transfers to any other college or course, unless, at the time when he was admitted to the University, he had satisfied, as shown by the records of the University, all the entrance requirements for the college or the course to which he transfers.

All persons shall be debarred from the competition for these scholarships who have participated in any previous competition for the same, or have been previously registered in this University (including the Summer Session) or in any other university or college.

The University Faculty's Standing Committee on Undergraduate Scholarships may vacate any scholarship for negligence, failure to maintain a high standard of scholarship, or conduct of any kind that is unbecoming for a student holding such a scholarship, after the student has been given an opportunity to explain his unsatisfactory record.

Whenever any of these scholarships shall for any reason become vacant, the vacancy shall be filled as the faculty may determine.

The moneys due on these scholarships are paid at the office of the Treasurer of the University in two equal payments on the 27th of February and the 30th of June, but no scholarship holder is entitled to receive his semi-annual payment until the Scholarship Committee has examined and approved his record for the preceding term, and until the chairman of the Scholarship Committee has certified that the record is satisfactory.

The special examinations for these scholarships begin on the first day of registration in September. Permits to take the examinations will be issued by the Registrar by mail on application, provided the candidate has satisfied all the entrance requirements and provided the application is accompanied by a statement giving the name of the school at which the candidate was prepared, the name of the principal, and the college degrees held by the principal.

Special Undergraduate Scholarships

The Frank William Padgham Scholarship. This scholarship, founded by Amos Padgham of Syracuse, New York, in memory of his son, Frank William Padgham, M.E. '88, entitles the holder to free tuition and fees in the regular course in Sibley College of Mechanical Engineering. It cannot be held in connection with a New York State Scholarship. It will be awarded to the candidate, if any, who has had his preparatory education in the public schools of Syracuse, New York, and who, having been admitted to the regular course in Sibley College, shall pass the best examination in a competitive examination on mathematics (solid geometry, advanced algebra, and plane trigonometry) and on two of the following: 1, third year German; 2, third year French; 3, English. The examination for this scholarship is held at the same time as the University Undergraduate Scholarship examinations; and the candidate must declare his intention to enter the Padgham Scholarship examination and state his qualifications therefor to the Registrar, who will issue the usual permit to enter this special examination. In case no one qualifies for this scholarship in the foregoing manner, the faculty of Sibley College may, with certain restrictions, recommend the awarding of the scholarship to some worthy applicant, preferably from Syracuse. Upon request, detailed information regarding the examination and the awarding of the scholarship will be furnished by the Secretary of Sibley College or the Registrar of Cornell University.

State Grange Scholarships in Agriculture. At its annual meeting in February, 1914, the New York State Grange adopted a resolution whereby \$600 is to be given to members of the Order in the form of twelve scholarships in the winter courses in agriculture in Cornell University. The scholarships are each of the value of \$50, to be awarded to men or women who attain the highest standing in competitive examinations. The candidate should apply to the Master of the Pomona Grange in his home county, or to the Deputy in counties which have no Pomona Grange.

Eudorus C. Kenney Scholarships. Under the will of Eudorus C. Kenney, of the class of 1882, his residuary estate was left to Cornell University, the net income to be used for the establishment of scholarships. The amount of the foundation is about \$40,000. Two scholarships, of the annual value of \$250 each, are awarded each year for a period of four years to applicants entering the university who are bona fide residents of the town of Truxton, Cortland County, New York. Such applicants shall be recommended by a committee consisting of the Principal of the Truxton Public School, the Superintendent of Schools for the district including Truxton, and the Supervisor for the Town of Truxton, the recommendation to be made and certified to the President of the University on

or before September 15 of each year. The President shall award the scholarship and certify the award to the Treasurer and the Secretary of the University Faculty. In case of a vacancy in any scholarship the value of the scholarship may be awarded by the Faculty Committee on Scholarships in such manner as they may deem best.

Beatty Agricultural Scholarships. By the will of the late Harrison L. Beatty, of Bainbridge, New York, the income of \$5,000 is devoted to three equal scholarships in the winter courses to be known as the Beatty Agricultural Scholarships. These scholarships are to be awarded to residents of Chenango County, one of whom shall be a resident of the town of Bainbridge. In making the award equal consideration will be given to education and practical experience. Competitive examinations are held annually in Norwich, New York, and Bainbridge, New York, in the last week in September; the exact dates are to be announced to those applying for the examinations. The applications must be sent to the Secretary of the College of Agriculture, Ithaca, New York, by September 1.

Scholarships for Foreign Students. With a view to aiding worthy students from the devastated countries of Europe, especially France, Italy, Belgium, Serbia, and Roumania, there have been established in the College of Agriculture five free tuition scholarships to be awarded by the Dean to worthy applicants from these countries. These scholarships carry free tuition for a period of four years each for such students to whom they may be awarded as shall enter any time prior to the close of the academic year 1922-1923.

The following undergraduate scholarships are not open to students at the beginning of their freshman year in the University:

1. **The Boardman Senior Law Scholarship** of the annual value of \$100.
2. **The Fraser Scholarships.** Two scholarships in the College of Law of the annual value of \$100 and \$50, respectively.
3. **The Roberts Scholarship Fund**, providing for five annual scholarships of the value of \$240 each, for students in the College of Agriculture.
4. **The Buffalo Alumni Association Scholarship** of the annual value of \$200, for students who are residents of Erie or Niagara County, New York. The recipient must have been at least one year in some university. Cornell University is not responsible for the award or the payment of this scholarship.
5. **The Student Fund of the Cornell Club of Rochester.** A loan of the annual value of \$200 as a maximum. The recipient must be an upperclassman, must have had at least one year of residence at Cornell University, and must be eligible to membership in the Cornell Club of Rochester, New York. Cornell University is not responsible for the award or the payment of this scholarship.
6. **The Fred Lewis Wilson Scholarship** of the annual value of \$192 is awarded for a period of not more than two years to students in Sibley College who have been at least one year in the University and who are in need of financial aid. The scholarship is awarded by a committee consisting of the President of the University, the Dean of Sibley College, and one other person chosen by them. In awarding the scholarship consideration is given to scholarship, character, probable usefulness in the world at large, proficiency in mechanic arts, and financial need.

7. **The William Delmore Thompson Scholarship.** This scholarship, established in memory of William Delmore Thompson, is for the benefit of all self-supporting students in Mechanical Engineering. It is to be awarded at the beginning of the junior year and, if the student's work proves satisfactory, is to continue through the senior year.

Scholarships and Fellowships in the Graduate School

There are in the Graduate School sixteen scholarships of the annual value of \$200 each, and twenty-five fellowships of an annual value of from \$400 to \$500 each. Holders of fellowships and scholarships are not required to pay tuition. The scholarship in Architecture grants only free tuition. For full information concerning these scholarships and fellowships the announcement of the Graduate School should be consulted.

PRIZES

For full information concerning the following prizes, see the special pamphlet on prizes which may be obtained upon application to the Secretary of the University.

1. **The Woodford Prize**, an annual prize in oratory, consisting of a gold medal of the value of \$100.

2. **The Horace K. White Prizes** of \$15 and \$10, respectively, awarded annually to the most meritorious students in the graduating class of the Veterinary College.

3. **The Sibley Prizes in Mechanic Arts**, of the annual value of \$100, awarded to students in the Sibley College of Mechanical Engineering.

4. **The '86 Memorial Prize in Declamation**, of the annual value of \$86.

5. **The Barnes Shakespeare Prize**, of the annual value of about \$50.

6. **The Fuertes Medals**, awarded to students in the College of Civil Engineering for scholarship.

7. **The '94 Memorial Prize in Debate**, of the annual value of about \$94.

8. **The Sands Memorial Medal**, awarded to students in the College of Architecture.

9. **The Brown Memorial Medal**, awarded to students in the College of Architecture.

10. **The Corson Browning Prize**, an annual prize consisting of a gold medal of the value of \$50.

11. **The Corson French Prize**, an annual prize consisting of a gold medal of the value of \$50.

12. **The Guilford Essay Prize**, of the annual value of about \$150.

13. **The Luana L. Messenger Memorial Prize**, an annual prize of \$250 for the essay giving evidence of the best research and most fruitful thought in the field of human progress or the evolution of civilization.

14. **The John Metcalfe Polk Memorial Prizes** of \$300, \$125, and \$75, respectively, awarded annually to students having the highest standings in the Medical College.
15. **The Sherman-Bennett Prize**, an annual prize consisting of the income on \$400, for the best essay discussing the principles of free government.
16. **The Morrison Trophy Cup Prize**, awarded to students in the winter courses for proficiency in debate.
17. **The Whiting Prizes** of \$50 and \$25, awarded to students in the Medical College.
18. **The James T. Morrison Poetry Prize**, of the annual value of \$100.
19. **The Eastman Prizes for Public Speaking** in the College of Agriculture, of the annual value of \$100 and \$20.
20. **The Sampson Fine Arts Prize**, an annual prize of the value of about \$30, awarded to the student who shows the most intelligent appreciation of the graphic arts and architecture.
21. **The Hollingworth Honorarium for Research**, \$50 awarded annually for research in the Veterinary College.
22. **The Early English Text Society Prizes**, four publications of the early English Text Society, awarded as prizes to the students passing the best examinations in Early English.
23. **Fuertes Memorial Prizes in Public Speaking**, prizes consisting of \$125, \$35, and \$20 awarded to students in the Colleges of Engineering and Architecture.
24. **The Graduate Prize in Philosophy** of \$25, awarded to students in the Graduate School.
25. **The James Gordon Bennett Prize** of \$50 for the best work on local and general anæsthesia in the College of Veterinary Medicine.
26. **The Jane Miller Prize** of \$50 for the best work in veterinary physiology.
27. **The George Chapman Caldwell Prize** of \$50, awarded to a member of the senior class in the chemistry course for general excellence in chemical work.
28. **The Ring Memorial Prizes**, of approximately \$30 and \$20, awarded to undergraduates in the College of Agriculture for the best essays on floriculture, vegetable gardening, or pomology.
29. **The Stewart Prize** of \$50, awarded to students in the Department of Dairy Industry.
30. **The J. G. White Prizes in Spanish**, three prizes, each of the value of \$100.
31. **The Student Medal of the American Institute of Architects**, awarded to the senior in the College of Architecture whose record is the best throughout the entire course.
32. **The C. Lathrop Pack Prize**, the income on a gift of \$500, awarded by the Faculty of the Department of Forestry.
33. **The Charles Lee Crandall Prizes**, of \$100 and \$25, awarded annually to seniors and juniors in the College of Civil Engineering.
34. **The French Société des Architectes diplômés par le Gouvernement français** offers two medals to be awarded by the faculty of the College of Archi-

ture to the two students in the college whom the faculty may choose as worthy of the distinction.

35. **The Goethe Prize** of \$50 for the best essay on Goethe.

36. **The Alumni Prize for Scholarship**, an annual prize of \$25 awarded to the junior in the College of Agriculture whose record is the best for the first three years.

37. **The William M. Polk Memorial Prizes in Gynecology** of the value of \$125 and \$75, awarded to students in the Medical College.

38. **The former Students Association of the College of Agriculture** awards a prize of \$25 to the junior in the college whose record is the best for the first three years.

FINANCIAL ASSISTANCE

The F. W. Guiteau Student Loan Fund. Through the generosity of the late Mr. Frederick W. Guiteau and his sister, the late Mrs. Nancy G. Howe, both of Irvington-on-Hudson, New York, a fund, known as the F. W. Guiteau Student Loan Fund, has been established in Cornell University, the income from which, amounting to about \$15,000 annually, is to be used "in advancing and assisting needful, worthy young men in pursuing their studies in said University".

The Women Students Loan Fund consists of the former Students Loan Fund, increased in 1913 by \$7,000, temporarily assigned to the fund by the late President Andrew D. White from funds placed at his disposal by the late Trustee Andrew Carnegie. The income is lent to needy women students.

The benefits of these funds are open to young men and young women who have been in attendance at Cornell University for at least one year but preference is given to Seniors and Juniors. Account is taken of the applicant's character, scholastic record, and need of financial assistance. Loans are made primarily to cover tuition fees.

Official application blanks to be used in applying for aid from these funds may be secured at the Secretary's Office, Morrill Hall 31, daily, 3 to 4 P.M., except Saturday, and all applications should be addressed to the Student Loan Fund Committee, Secretary's Office, Morrill Hall.

The Wurts Fund was established to assist working students in the College of Mechanical Engineering.

The Florence Dearstyne Fund provides an income to be used under the direction of the Federation of Cornell Women's Clubs in assisting needy young women students.

The Polish Students Loan Fund is a gift from Polish students at Cornell to be disbursed to candidates presented by members of the Polish Club of the University.

The State Scholarship Alumni Fund is the nucleus of a fund to assist needy students. It was established in 1914 by the gift of G. W. Graves, A.B., 1905, M.D., 1908, and is the equivalent of the state scholarship held by him.

The Woman's Guild Fund is the gift of women interested in the University. The income is used to aid needy sick students.

The W. C. Seidel Book Fund of \$1,000 provides an annual income to be used to purchase books for poor young men who are working their way through the College of Civil Engineering. Preference is given to Freshmen.

The Agricultural Students Loan Fund is a fund created by students in the College of Agriculture, from which small loans are made to needy agricultural students who can present acceptable security.

The Edwin G. Vail Fund provides an income to be expended in the aid of needy students from Dutchess County who may in the annual examination therefor succeed in winning a State Tuition Scholarship in the University.

The John Knickerbacker Fund. This fund, the gift of John Knickerbacker, '87, provides financial aid to students who lack means for adequate support and have good minds, healthy and strong bodies, good moral character, sound moral opinions and beliefs, are earnest and persevering workers and come from parents born in the United States and known to be or to have been good citizens.

OPPORTUNITIES FOR SELF-SUPPORT

Many students earn all or part of their expenses while attending the University. Opportunities for self-support occur chiefly in the line of personal services of various kinds, such as waiting at table, and caring for furnaces and in the management of various student enterprises, laundry agencies, etc. In practically all the numerous student boarding houses, student waiters are employed, who receive their board in return for their services. The University does not, however, undertake to secure positions. A student's time should be quite fully occupied by his scholastic work, and only those of great determination, who have good health and a strong physique, should undertake the extra burden of any outside employment. No student should begin a course at the University without sufficient funds to meet all the expenses at least of the first year.

Students of high scholarship occasionally have the opportunity of doing some tutoring, and in some of the departments of the various colleges student assistantships with appropriate compensation are open to seniors of exceptional ability and attainments.

The Cornell University Christian Association, through its employment bureau, is always ready to assist students in search of work, and its secretary will welcome any inquiries from men students with reference to opportunities for self-support. Women students in search of employment should address the University Adviser of Women, The Adviser's House, Ithaca, New York.

THE UNIVERSITY LIBRARY

The University library comprises the main general library and ten department libraries and laboratory collections. The total number of volumes and bound pamphlets is above 600,000, including the special collections in History, Language and Literature, Dante, Petrarch, and Icelandic literature, China and the Chinese. Additional books, not in the library, are borrowed for special work from other libraries, whenever possible, thus affording unusual facilities for research work in many fields. The general library provides a large reading-room, and places around the walls a selection of the standard literature of all subjects; a reference

room for the frequent consultation of books; a periodical and newspaper department; and special seminary rooms where graduate students are given every facility for work with collections of books deposited therein. The privilege of taking books for home use is given to all students with only such restrictions as are necessary to preserve the rights of all users.

SAGE CHAPEL AND BARNES HALL

Religious services, provided for by the Dean Sage Preachership Endowment, are conducted in Sage Chapel throughout the academic year by eminent clergymen selected from the various religious denominations. These services are supplemented by the Cornell University Christian Association, a voluntary organization of students and professors formed for their own religious culture and the promotion of Christian living in the University. The Christian Association has its home in Barnes Hall; it has permanent secretaries and a carefully selected library of biblical literature, also comfortable reading and recreation rooms. Bible study courses are carried on throughout the year.

There is in addition to the Men's Christian Association, a flourishing Young Women's Christian Association, with quarters in Barnes Hall.

The students of the University are welcomed by the churches in the city of Ithaca at all their services.

LECTURES AND CONCERTS

In the course of each year many men of eminence, native and foreign, are invited to lecture before the University or one of its colleges. These lectures are always free to students in all the colleges of the University.

A series of musical concerts at various times during each year is provided by the Department of Music. Weekly organ recitals, with free admission to all members of the University, are given in Sage Chapel or Bailey Hall.

DEPARTMENT OF MILITARY SCIENCE AND TACTICS

University Requirements. Every male student who is a candidate for a baccalaureate degree, except in the College of Law, who is required to take five, six, seven, eight or more terms in residence, must take, in addition to the scholastic requirements for the degree, one, two, three, or four terms respectively, of three hours a week, in the Department of Military Science and Tactics.

The requirements in Military Science must be completed in the first terms of residence, otherwise the student will not be permitted to register again in the University, without the consent of the University Faculty.

General Information. The aim of the Department is to give training which will enable the graduates to serve as officers of any forces raised by the United States. The students are organized into an Infantry Regiment of twelve regular companies, one headquarters company, one machine gun company, and a band, and a Battalion of Field Artillery of three batteries.

This course includes physical training, military drill, and the application of fundamental principles of modern tactics. During the second year qualified

men may elect the Field Artillery or Machine Gun training. The band is both the cadet and university band. Students regularly enrolled in the Department may be assigned thereto for training, instead of to a company. A student electing drill in his junior and senior years and taking two hours a week additional theoretical instruction is paid commutation of subsistence of forty cents a day by the United States provided he agrees to attend a summer camp of six weeks.

Any qualified member of the Cornell University Reserve Officers' Training Corps who has satisfactorily passed the first year of his university course, may, on the recommendation of the Commandant, and the nomination of the President of the University, be commissioned as an officer by the University Faculty. The University provides pay, ranging from \$50 to \$250 annually,* for each of the seventy-two commissioned officers of the Reserve Officers' Training Corps. In addition, the twenty-four senior officers are assistants in the department.

Any student may elect drill during his entire course at the University and upon graduation is eligible for appointment as 2d Lieutenant in the Reserve Corps.

Each cadet is furnished a complete uniform by the United States which must be returned at the end of the college year.

DEPARTMENT OF PHYSICAL TRAINING*

Students who are officially relieved of the requirements of Military Science and Tactics are subject to the requirements of the Department of Physical Training.

Every male student who is a candidate for a baccalaureate degree who is required to take five, six, seven, eight, or more terms in residence, must take, in addition to the scholastic requirements for the degree, one, two, three, or four terms respectively, of three hours a week, in the Department of Physical Training in case he is relieved of the requirements of the Department of Military Training. The requirement may be extended at the discretion of the Medical Adviser.

Every woman student who is a candidate for a baccalaureate degree who is required to take five, six, seven, eight, or more terms in residence, must take, in addition to the scholastic requirements, one, two, three, or four terms respectively, of three hours a week in the Department of Physical Training. The requirement may be extended at the discretion of the Medical Adviser.

All students including graduates are required to present themselves to the Medical Adviser and receive a thorough confidential physical examination at least twice a year throughout their college course. Freshmen and Sophomores may be required in exceptional cases of physical defect to substitute for military drill corrective physical exercises in the Department of Physical Training as prescribed by the Medical Adviser. Juniors and Seniors are relieved of all required physical exercises provided their periodical medical examinations show that they have kept themselves in satisfactory physical condition. Otherwise they may be required to take or continue corrective physical exercises.

It is the aim of the University to encourage participation in athletics on the part of all students rather than on the part of a few, as it is believed that in well regulated athletics is found, for the great majority of college men, the best solution of the problems of rational and effectual training. Permission is there-

*A special course in Physical Education is offered for those who are planning to teach.

fore given to the student, under certain limitations, to satisfy the requirement in Physical Training by taking such forms of exercise as he may choose, provided he is found, upon examination, to be physically sound. He may try for an athletic team, take scheduled walks in the country, or indulge his tastes in other outdoor forms of recreation, such as tennis, golf, etc.

DEPARTMENT OF HYGIENE AND PREVENTIVE MEDICINE

All first and second year students of all the colleges are required to attend lectures on Hygiene and Preventive Medicine given once a week throughout the college year. Reading is assigned and a written examination is required.

PHYSICAL EXAMINATIONS AND MEDICAL ADVICE

A physical examination is required of *all* students each semester. Students physically deficient at the time of the semester examination will be assigned to the Department of Physical Training by the Medical Advisers for such corrective exercises as they may deem necessary.

The Medical Advisers observe regular office hours at their respective offices in the gymnasium for men and in Sage College.

In cases of illness or indisposition which involve absence from classes even for one day, students are expected to report immediately either in person, by telephone, or by messenger to the Medical Advisers' office. For the convenience of the Medical Advisers such illness should be reported early in the day. Students who are indisposed but still able to attend classes should consult the Medical Advisers immediately in order that advice may be given and diagnosis of incipient diseases may be made promptly. Any student failing to report as soon as possible to the Medical Advisers any contagious or infectious disease will be regarded as guilty of a serious breach of discipline. No excuses on account of illness will be accepted by the various colleges and departments of the University unless issued by the Medical Advisers. Excuses will not be given by the Medical Advisers' Office where no notification *at the beginning of a sickness* has been given.

Students who leave the city to consult out-of-town physicians must first arrange for a leave of absence. Letters of out-of-town physicians certifying to the illness of students should be accompanied by letters from the parents or guardian.

No charge is made for the services of the Medical Advisers.

A student may at any time be requested to withdraw from the University if, in the opinion of the University authorities, the condition of his health is such as to make it unwise for him to remain.

THE CORNELL INFIRMARY

The Cornell Infirmary is the former mansion of the late Henry Williams Sage, for many years chairman of the Board of Trustees of the University. At his death in 1897, his sons, Dean and William Henry Sage, endowed it and gave it to the University for a students' Infirmary as a memorial to their father. In 1912 a modern fireproof addition was erected with a capacity of sixty-two beds.

The Infirmary, which is in charge of an experienced superintendent, is thoroughly equipped in every way, and is open throughout the University year. It provides suitable rooms, food, and nursing for sick students. It has no medical staff; students employ their own physicians among practitioners in Ithaca or elsewhere.

For Infirmary fees see page 35.

ATHLETICS

The University encourages every student to participate in some form of athletic exercises unless prevented by physical disability.

A careful physical examination is made of all new students and exercises are prescribed to meet their individual needs. All men and women who desire to train for athletic competition are examined by their respective medical examiners.

The new playground and Schoellkopf athletic field covering 55 acres on the Campus are within five minutes walk of the main quadrangle and offer ample room for outdoor athletic games and exercises. The Armory and the Gymnasium are used for indoor work during the winter months. Two boathouses, one for the 'varsity crews and one for the college crews, are situated on the inlet to Cayuga Lake, and are the headquarters of the crews during the spring and autumn. Women students have their separate gymnasium, boathouse, athletic field, etc.

A particular effort is made to interest all students in physical exercises not merely students of unusual physical ability who are attempting to become members of some of the organized athletic teams. An athletic league exists among the various colleges of the University and a series of athletic contests is carried on throughout the year. All students in the University except the 'varsity athletes may participate in these. The games consist of cross-country running, association football, basketball, indoor athletics, baseball, track athletics, and rowing. Participation in these games as well as in such other games as tennis, lacrosse, handball, and golf, and in such forms of exercise as boxing, wrestling, and fencing, is regarded as fulfilling the requirements of the Department of Physical Training.

Membership on the teams which represent the University in intercollegiate contests is by rigid competition. These intercollegiate sports consist of rowing, football, baseball, track athletics, lacrosse, basketball, cross-country running, wrestling, association football, tennis, and golf.

STUDENT FRATERNITIES AND OTHER ORGANIZATIONS

There are over sixty fraternities at Cornell University. Membership in them is by invitation and election. Many of the fraternities have their own houses in which their members live.

The national, literary, and scientific societies, Phi Beta Kappa, Signa Xi, Eta Kappa Nu, Order of the Coif, and Tau Beta Pi have chapters at Cornell. In addition to these there are various college and departmental and class clubs of a literary or scientific nature. Membership in all these is by election.



CORNELL UNIVERSITY OFFICIAL PUBLICATION

Issued at Ithaca, New York, monthly from July to November inclusive, and semi-monthly from December to June inclusive.

[Entered as second-class matter, December 14, 1916, at the post-office at Ithaca, New York, under the act of August 24, 1912.]

The Register (for the year 1918-1919, published January 1, 1919), price 50 cents.*

Directory of Faculty and Students, First Term, 1919-1920, price 10 cents.*

A Guide to the Campus, price 50 cents.*

Any of the following informational pamphlets will be sent gratis and post-free on request. The date of the last edition of each is given after the title.

General Circular of Information for Prospective Students, January 15, 1919.

Announcement of the College of Arts and Sciences, May 15, 1919.

Announcement of Sibley College of Mechanical Engineering and the Mechanic Arts, February 15, 1919.

Announcement of the College of Civil Engineering, June 1, 1919.

Announcement of the College of Law, February 1, 1919.

Announcement of the College of Architecture, July 1, 1919.

Announcement of the New York State College of Agriculture, June 15, 1919.

Announcement of the Winter Courses in the College of Agriculture, August 1, 1919.

Announcement of the Summer Term in Agriculture, March 15, 1918.

Announcement of the New York State Veterinary College, May 1, 1919.

Announcement of the Graduate School, March 1, 1919.

Announcement of the Summer Session, April 1, 1919.

Summary of the Work of the Associate Alumni of Cornell, April 15, 1919.

Annual Report of the President, October 1, 1919.

Pamphlets on prizes, samples of entrance and scholarship examination papers, special departmental announcements, etc.

Announcement of the Medical College may be procured by writing to the Cornell University Medical College, Ithaca, New York.

**Please make all orders payable to CORNELL UNIVERSITY.*

This blank is to be filled in and sent to the Registrar, Cornell University, Ithaca, New York.

In the foregoing list a minus sign (—) preceding the name of a publication will indicate that you desire that publication. A plus sign (+) will indicate that you have already received the publication.

Name

Do you intend to enter Cornell University?

What course?

Address (number, street)

Place State